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Saier's GARDEN MAGAZINE

A MANUAL OF RARE FLOWERS, THEIR SELECTION AND CULTURE

Vol. 2, No. 14.

AUGUST, 1951

25 Cents



Lucky is the Owner of a Garden having a Pond or Stream

40 YEARS
of
EXPERIENCE

Beautiful Gardens Everywhere
also Listing Many Rare Flowers

THE PICK OF THE 1951 LILY CROP

PRICES: Are for 1, 10, and 25 bulbs prep'd.

L. AMABILE. Oct.
4-6" .50 5.25 10.50

Korean Lily. Turk's Cap shaped, grenadine-red, spotted black. It is of the easiest culture and is a fine rockery Lily. Sun or partial shade, cover bulb 4", 3 ft., late June.

L. AMABILE LUTEUM. Oct.
4-6" .70 6.50 13.00

A lovely yellow form of the above that is not commonly grown in our gardens. Otherwise same as the above.

L. AURATUM. (Type) Nov.
6-8 1.00 8.50 17.00
8-10" 1.40 11.00 22.00
10-12" 1.75 14.50 29.00

Gold Banded Lily. The most beautiful of all Lilies. Large bowl-shape blooms, waxy white, spotted crimson, each segment striped with a gold band, and when established as many as 30 large showy blooms will be had on a plant. Ample humas, sun or partial shade especially in the South, easy culture. Cover bulb 5", 15 in. apart; 4-6 ft; August.

L. AURATUM IMP. ESPERANZA. Nov.
5-6" 1.20 9.75 19.50
6-7" 1.50 11.75 23.00
7-8" 1.75 14.00 28.00

A fine selection of Canadian grown stock. The flowers are of huge size, and plant extremely hardy; a group in bloom in the garden is a picture difficult to describe. Sun or partial shade, 15 in. apart, cover 5", no deeper; 6 ft. tall; August.

L. AURATUM PLATYPHYLLUM. Nov.
6-8" 1.00 9.50 18.50
8-10" 1.50 12.00 25.00

A more massive and robust form and even hardier than the type. The flowers are huge and measure up to 12" across. Does better in partial shade; cover 5"; 6 ft; August.

L. AURATUM PICTUM. Nov.
Fl. Size 2.25 23.00 48.00

The blooms are large and open, white and heavily spotted with crimson, with tips of the petals flushed pink to crimson. Cover bulb 5"; 15 in. apart; 6 ft; August.

L. AURATUM TRICOLOR. Nov.
Fl. Size 3.00

Similar to A. Platyphyllum but without the crimson spots. It has the gold band and light yellow spots; is very desirable.

L. AURELIAN HYBRIDS. Nov.
Fl. Size 3.00

This is a beautiful group of Lilies, varying in form and color from white, shaped like Henryi to trumpets of deep yellow and apricot with all the intermediate shades and colors, with some shaped almost like Auratums. These are special selections of semi-bowl and semi-recurved types. Order early if you want any this year. Cover 6"; 6 ft; August.

L. AURELIAN HYB "MEI LING" Nov.
Fl Size 4.00

A beautiful semi-recurved form, with

Order EARLY. Many of the scarce kinds always run short later in the season.

All quotations are prepaid in the U. S. on orders of \$1.00 or more; if less than \$1.00 add 20¢ for extra postage and packing.

Note delivery months. These are listed at the end of the line with the name. Some Lilies cannot be shipped until late in September or even October. Your order, may may be shipped in one or more shipments and at different dates and orders of one bulb each of several kinds may be sent at the later date, unless you wish them mailed as ready, in which case add 20¢ extra.

All prices are subject to change and will no doubt have to be revised upwards next month for those quoted now are very reasonable as you will note when comparing them with those of our competitors.

lovely cream flowers, gold centers; 4½ ft; August.

L. AURELIAN GOLD TRUMPETS. Nov.
Fl. Size 2.25 23.00 48.00

A grand strain of the originator's stock, all selected and tagged while in flower to assure uniformity. The large fragrant trumpets are light unspotted golden yellow; in form somewhat like L. Centifolium. Cover 6"; 5 ft; July to August.

L. Mrs. R. O. BACKHOUSE. (Hyb) Oct.
Fl. Size 3.00

A tall strong growing variety with as many as 30 blooms to the stalk; flowers recurved, ivory, flushed with gold and delicately spotted brownish purple; cover bulbs 5"; 5 ft.; late June blooming.

L. BACKHOUSE HYB. SEEDLINGS. Oct.
Fl. Size 2.00 16.00 32.00

Large recurved flowers varying in color from orange-yellow to orange-red and spotted mahogany. They are of easy culture, disease resistant and very desirable. Cover bulb 5"; 5 ft. tall; late June.

L. BELLINGHAM HYB. SEEDLGS Oct.
5-6" .50 5.00 10.00
6-7" .70 6.00 12.00

Here is a magnificent type of Lilies that are highly resistant to disease as well as long lived. They have an airy orchid-like effect with as many as 30 flowers on a stalk. Be sure to plant them in partial shade, plenty of humas and good drainage. Large recurved orange-yellow to orange-red, spotted mahogany; 6 ft. tall; June to July blooming.

L. BRENDA WATTS (Hybrid) Oct.
4-6" .60 6.00 12.00

A pretty, large recurved fire red dotted deep purple. This is a beautiful variety for any garden; cover bulb 6"; sun or partial shade; 5 ft; July.

L. BOLANDERL. Oct.
Fl. Size 1.20 9.50 19.00

Thimble Lily. A pretty bell-shaped small flower in early July; wine-red with darker spots; 3 ft; cover 4"; 10 inches apart.

Planting depths given are always from the TOP of the bulb to surface of the soil.

L. CANADENSE FLAVUM. Oct.
1st. Size .30 4.00 8.25

Canada Lily. One of the best of the American Lilies; its nodding bell-shaped flowers are in a pleasing shade of golden yellow, with mahogany spots. Flowers in early July; 5 ft; cover 4"; 10 in. apart.

L. CANADENSE RUBRUM. Oct.
1st. Size .70 7.00 14.50

Red Canada Lily. This is a delightful variety; a red form of C. flavum, with yellow throat and just a few mahogany colored spots. Both Canadense forms make a showy display in a group planting of 10 or 25 bulbs; same culture as above.

L. CERNUUM. Oct.
Fl. Size .60 6.00 12.00

Nodding Lily. A very attractive little lily similar to L. tenuifolium in form. The flowers are nodding, reflexed, 2-6 on slender stems, in mid-July; rosy-lilac, spotted wine-purple. It is delightfully fragrant too; ideal for the rockery; sun or partial shade; cover 3"; 8 in. apart; 5 ft. tall.

L. CHEHALEM HYBRIDS. Nov.
6-8" .95 9.00 18.50
8-10" 1.50 12.00 25.00

A 1950 introduction; trumpets are large, the color varying from wax-white to cream with yellow, apricot or pale green throats. Blooms in July; 5-6 ft. tall. We are making a special price on these hybrids this year that you will plant a group.

Fl. Size .40 2.50 10.00

L. COLUMBIANUM INGRAMI. Oct.
1st. Size .65 6.00 12.50

An improved form of L. Columbianum. It is a robust Lily with up to 20 small reflexed orange-yellow blooms, spotted mahogany. It is not easy to grow, therefore scarce in the average garden. Partial shade, humas and perfect drainage; late June flowering; cover bulb 5"; 6 ft. tall.

L. CORONATION (Hybrid) Oct.
4-6" 1.75 14.50 29.00

A recent introduction of Miss Preston of Canada. The flowers are slightly pendant recurved and of a clear saffron-yellow with a few brown spots. It has as many as 20 flowers per stalk. Sun or partial shade; 6 ft. tall; late June; cover 6 inches.

L. CORSAIR (Preston Hybrid). Oct.
2.00 13.00 30.00

Carries medium sized upright vase-shaped flowers of tangerine-orange, flushed red at the tips, 12-15 flowers to the stem; 2-3 ft; June to July; cover 6 inches.

L. CROW'S HYBRIDS. Nov.
.90 8.00 16.50

These are magnificent trumpet hybrids, a cross between L. Sulphurgale and L. princeps. They are huge cream to white flowers with golden yellow throat, shaded deep purple externally, and blooming right after the Regal Lilies. Cover 6"; 5-6 ft. tall; late July.

L. DALHANSONII HYBRIDS. Oct.
Fl. Size 2.75

A gorgeous hybrid in oxblood-red shading to tangerine-orange at the base. The blooms are thick petalled, recurved and similar to L. Hansoni, one of its parents. As many as 30 flowers per stem. Cover bulb 5"; 4-5 ft; June; partial shade.

Continued on Inside Back Cover

PIONEER SEED COMPANY - DIMONDALE, MICH.

The Shakespeare Garden

Much sentiment has from time to time been expended on Shakespeare gardens. Private gardens have not persevered with the idea for long; but there are public gardens in which such gardens are still a feature.

A casual reading of the plays would indicate that such a garden would be mostly herbs but actually there is a goodly list of trees and flowers from which to choose. The crab tree mentioned in King Henry VIII. King Lear and The Taming of the Shrew was doubtless the crab apple a useful tree then as now. Apricocks of Midsummer Night's Dream and Richard II were apricots, the earliest ripening fruit. The apple-John of Henry IV, Pt. 1, were a variety of apple that shriveled when stored, so no doubt were as juicy as our Delicious. There is also an apple, a sweeting, mentioned in Romeo and Juliet which has descendants in this country a popular apple for boiling. The pomewater of Love's Labour Lost was also a kind of apple.

The willow garland the emblem of unhappy love occurs in King Henry VI, Pt. iii; while the Queen in Hamlet announces Ophelia's tragedy to her brother.

"There is a willow grows aslant a brook,
That shows his hoar leaves in the glassy stream."

The lime tree and broom groves occur in The Tempest. The lime was the linden or plane tree, quite common to-day on the eastern shores of America. By some, broom groves are held to be the Spartium scoparium or it may mean overgrown with genista, either of which would be useful in a garden, if controlled. Elder trees occur in Cymbeline and hawthorn buds are used in The Merry Wives of Windsor. There is a cypress grove in Coriolanus and yew wood for bows in King Richard II. Dian's buds in Midsummer Night's Dream were probably the buds of the Agnus Castus or Chaste tree.

Shakespeare must have known his garden for he mentions the dibble for transplanting which only the gardener uses. Of herbs there was no lack. In a country where strewments were an important part of house-keeping there could not be too many. Queen Elizabeth's audience chamber was always freshly strewn with herbs. Balm, from which anointing oil was obtained was among these herbs. Its strong lemon flavour was exuded when the leaves were crushed. Lavender, marjoram, savory and mints were no doubt used as strewing herbs. Herbs such as these are named in A Winter's Tale, which teems with flower references. There is the Crown Imperial, the Fritellaria Imperialis, early introduced into England from Constantople... "Daffodils

"That come before the swallows dare,
and take

"The winds of March with beauty; violets dim

... pale primrose,

... bold oxlips and

"The Crown Imperial, lilies of all kinds,

"The flower-de-luce being one..."

The primrose here must be the pale yellow, often called the Beaconsfield. But the gold and silver laced that we prize as rarities today were said to have been popular in Elizabethan England. Fleur-de-lis in King Henry V and King Henry VI probably referred to the white iris, the emblem of France often referred to as lilies. The violet was the emblem of faithfulness. Pansies

by Ann Hanley

were often called love-in-idleness (being Cupid's flower,) as well as heartsease.

Burnet (*S. sanguisorba officinalis*) the common burnet, is often found in fields of sainfoin which it resembles (King Henry V). Caraways in King Henry IV were a kind of confection made with the cumin seed of *C. sativa*, an eastern umbelliferous plant with aromatic seeds. The plantain leaf mentioned in Romeo and Juliet and supposed to be useful for the healing of wounds was used in this country not so long ago as a relief for inflammation. Rue, the herb or grace, of King Richard II, A Winter's Tale, Hamlet and All's Well That Ends Well was the em-

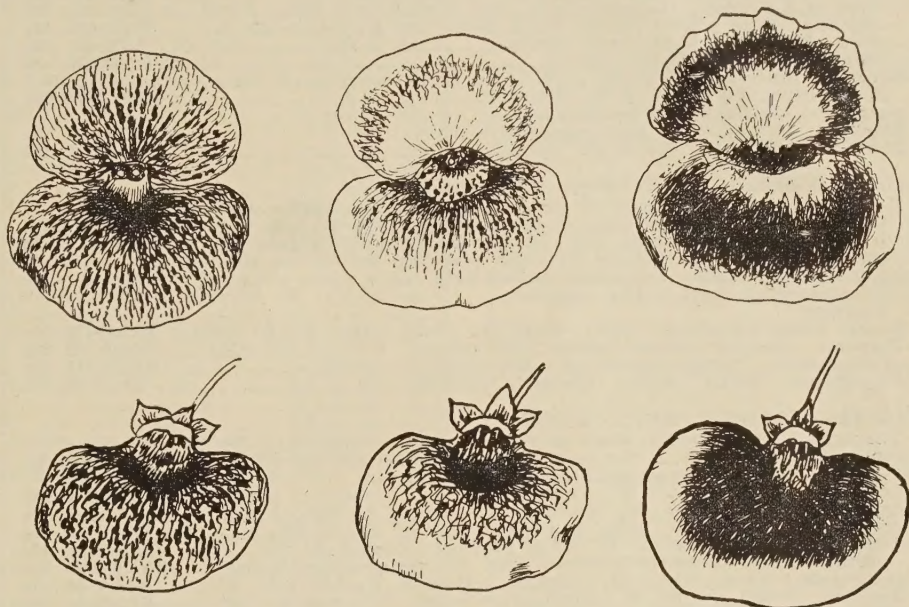
blem of repentance. Fennel the emblem of flattery is also found in King Richard II. it was used in medicine and also in sauce for fish as with conger in King Henry IV.

Rosemary was common at weddings and funerals as a symbol of remembrance and is used in A Winter's Tale. Some have held that gillivors were carnations, but as both words are used together in the above play, it seems certain that wallflowers are intended. In Cymbeline we have marybuds for marigolds. The crow flowers of Hamlet were no doubt buttercups.

In Othello occurs colocynth, the coloquintida or bitter apple, a squash-like plant introduced from the East and used as a purgative. Pumpkin of The Merry Wives was the pumpkin. Oxlips of A Midsummer Night's Dream was a variety of cowslip found in

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Pansy-flowered Calceolaria Dippe's New Double Pouched Strain



The above picture shows the new double pouched strain of Calceolarias developed by Dippe Brothers of Germany, during the last five years. The old single type is shown in comparison. There is very little of this seed in the U. S., it being grown in the Russian Zone of Germany.

Planting Small Seeds in Missouri

I would like to tell you how I start my fine seeds. I use a variety of containers, large open mouth jars, bowls with plastic covers, ice box dishes with lids, casseroles, clay pots or any other container but want to have them closed tho, not only for humidity but it is a time saver too for busy days, as they need so little attention.

Each person has their favorite medium for seeds but I prefer a prepared soil, say, 1 part sand, 1 part peat and 3 parts good garden loam. Place a jar on its side, place the soil in the bottom, dampened, but not too wet. The opening should be large enough to let your hand enter; sow seed thinly on the damp soil; put lid on jar and set away in light but not sunlight. Soon the wee green plants will begin to show and as they grow they can take more sun but partial shade, for even mature plants, such as Begonias, Gloxinias and African Violets is to their liking.

Learn to know your plants and where one

location makes one plant happy and another plant may not do so well, so shift them around till all plants are happy. When seedlings begin to need transplanting they can be removed by slipping a knife under them and lifting them out with the soil. These can then be planted in flats or tiny pots but they will still need the humidity of their wee greenhouse, so tiny pots can be placed in large jars or single jars turned up-side-down and placed over them.

In flats, a cellophane top can be made with sticks to hold some in place. At times drops of moisture will form inside of the jar or other container used and when it does I remove the lid and wipe it off and let the air circulate a while, replace lids or covers. As a rule they need no extra watering and seldom oftener than 5-6 weeks. This alone

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Use warm water for African Violets.

ROSE - ROMULEA - RUDBECKIA

ROMULEA. (ro-mu-LE-ah) Iridaceae.

Crocus-like bulbs in purple, lilac and yellow and closely related to the Crocus, but not real hardy; they are not common in the U. S.

- bulbicodium.** Pale lilac, yellow centers, tinted golden brown..... ROMU-1. 25¢
- Hartungii.** From S. Africa..... ROMU-2. 25¢

ROSE. Genus Rosa. Rosaceae.

The seed of species of Roses should be planted in the fall so that they can lay over winter, in the soil when they usually germinate all right the next spring. The seed bed should be so arranged that it can remain the second spring, for it is not unusual for some seed to even germinate the second spring.

- highdownensis.** Crimson fls; bright fruits; a hybrid; HP..... ROSE-68. 25¢
- multiflora.** White fragrant fls; semi-climber; 8 ft; HP; China..... ROSE-106. 25¢
- pendulina.** Rose fls; incorymb; 3 ft; HP; Europe..... ROSE-118. 25¢
- setigera.** Prairie R. Cl. to 15 ft; Pale rose fls; HP..... ROSE-134. 25¢
- Rose Mixture.** All species..... ROSE-X. 25¢

RUDBECKIA. (rud-BEK-e-ah) CONEFLOWER Compositae.

Conical shaped disks of daisy-like flowers. They thrive in any ordinary soil, either in sun or partial shade. Seed can be planted early indoors or later outside. They are especially nice for cut flowers or massing in the border.

- amplexicaulis.** Yellow petals, brownish disk; 2 ft; HA..... RUD-1. 15¢
- bicolor, Golden Sunset.** Double golden fls; HA..... RUD-2G. 15¢
- hirta.** Black Eyed Susan. Bien. but often annual; 3 ft; rays golden yellow, disks purple-brown, $\frac{3}{4}$ " across; June-frost; comes in many varieties..... RUD-6. 15¢
- Autumn Tints.** Golden yellow petals, dark disks; 2 ft; HA..... RUD-6A. 15¢
- Herbstwald.** Mostly red shades; New Swiss novelty..... RUD-6H. 20¢
- Star of Kelveodon.** Golden yellow rays, dark brown disks; $2\frac{1}{2}$ ft..... RUD-6K. 15¢
- My Joy.** Pure golden yellow, black disk; very good German var..... RUD-6M. 15¢
- New Hybrids.** Many new forms..... RUD-6Y. 15¢
- Mixed Hirta R.** Above mixed..... RUD-6X. 15¢
- Speciosa, Newmanii.** Pinkish rays, large dark cone; petals hang downward giving it an attractive effect; 2 ft; HP..... RUD-17N. 20¢
- purpurea:** see *Echinacea purpurea*.
- Starlight.** Semi-double; good range with many bicolors..... RUD-17S. 15¢
- Rudbeckia Mixture.** All kinds mixed..... RUD-X. 15¢

SALPIGLOSSUS. (sal-pi-GLOS-is) Solanaceae.

Half hardy annuals from Chile, the Paisly Flower, suggests well the exotic beauty of its coloring, rich velvety tones of purple, blues, yellows, reds and white veined with gold. Flowers funnel-shaped, $2\frac{1}{2}$ " across; blooming from July till frost. Start seed early indoors being careful not to allow seedlings to become stunted; best in sandy soils and partial shade. Germinate in full light and a warm place. For winter flowers in the greenhouse start in late summer

- S. sinuata:**
- Dwarf Giant Flowered.** Bushy; large fls; many colors; $1\frac{1}{2}$ ft; HHA..... SALP-1D. 20¢
- Emperor.** Upright growth; heavy gold veining; extra; 3 ft; HHA..... SALP-1E. 25¢
- gloxiniiflora.** Gloxinia-flowered, beautifully marked..... SALP-1G. 20¢
- Salpiglossus Blend.** Above blended together..... SALP-X. 20¢

SALVIA. (SAL-v-ah) SAGE. Labiatea.

There are many species, some of which are very showy in the flower border. *S. splendens*, Scarlet Sage, is the best known, being grown for its red flowers. They all are easily grown from seed and require no special care.

- argentea.** Silver S. Lvs 8", white woolly; fls rose-white; pan; HB..... SALV-4. 20¢
- azurea.** Blue or white fls, $\frac{1}{2}$ " long, racemes; 3 ft; TP..... SALV-7. 20¢
- coccinea.** Scarlet fls $1\frac{1}{2}$ " long, racemes; Tex; 2 ft; TA or TP..... SALV-20. 20¢
- farinacea.** Violet-blue fls, $\frac{1}{2}$ " long, racemes; Tex; 3 ft; TP..... SALV-24. 20¢
- Blue Bedder.** Improved form in blue fls; longer spike; "hardy"..... SALV-24B. 20¢
- interrupta.** Bluish white fls, racemes; 2 ft long; N. AF; 4 ft; TSh..... SALV-40. 30¢
- Juriscii.** Small purple fls branched racemes; 18"; Serbia; HP..... SALV-44. 30¢
- officinalis.** Garden Sage. Sow late fall or early spring (see Herb List)..... SALV-60. 15¢
- patens.** Gentian S. Blue fls, 2" long; Mex; $2\frac{1}{2}$ ft; *HHP..... Salv-61. 20¢

.When marked with a star as: *HHP or *HB, treat the plant as an annual in the North.

- Cambridge Blue.** Pretty blue variety..... SALV-61C. 20¢
- Mauve Queen.** Lovely mauve variety..... SALV-61M. 20¢
- pratensis.** Bright blue fls, 1" long; racemes; 3 ft; HP..... SALV-64. 20¢
- Clarea.** Clary S. Rose and white fls 1" long, panicle rac; 3 ft; HB..... SALV-77. 20¢
- turkestanica.** White fls tinged pink..... SALV-77T. 25¢

S. SPLENDENS: Well known Scarlet Sage, plants of which are easily grown from early started seeds sown in Feb. or March. They are perennials but tender and thus grown as a tender annual in the North; blooms from July till frost. Seed germinate in about 15 days and should be kept in a warm place and in light; cover seed pan with glass. The varieties vary in time of flowering, height, type of growth and flower color.

- America.** Earliest, uniform plants, 20" tall; brilliant scarlet; Oz. \$1.25 SALV-85A. 20¢
- Bonfire.** Brilliant scarlet; erect stiff growth; $2\frac{1}{2}$ ft; Oz. \$1.35..... SALV-85B. 20¢
- Fireball.** Scarlet, very early; dwarf, heavy spikes Oz. \$1.25..... SALV-85F. 20¢
- Rocket.** Very early dwarf, $1\frac{1}{2}$ ft; Oz. \$2.50..... SALV-85R. 30¢
- St. John's Fire.** Early dwarf, scarlet; upright 10" plants..... Oz. \$4.00..... SALV-85S. 30¢
- Zurich.** Earliest and very dwarf; compact; scarlet; 18"..... Oz. \$1.50..... SALV-85Z. 20¢
- Salvia Blend.** All species except *S. splendens*..... SALV-X. 20¢

SANTOLINA. (san-toh-LY-nah) Compositae.

Low border or edging plants, many of which are propagated by cuttings. Grayish low evergreen shrubs with many flowered heads of yellow or white disk flowers.

- rosmarinifolia.** Solitary heads; 2 ft; Med. Regions; HHSh..... SANO-6. 25¢

SAINTPAULIA. (saynt-PAU-le-ah) AFRICAN VIOLETS. Gesneriaceae.

African Violets can be easily grown from seeds and these produce excellent flowers. The seed being small sow on the surface of mixture of peat, leaf mold and silver sand, equal parts; press seeds into soil, cover with glass; water from below; keep in warm place when they germinate in 2 weeks, when glass should be removed to avoid damping off.

- diplotricha.** (ionantha) Best species for pot plants..... SAPU-1. 50¢

AFRICAN VIOLETS (by Carolyn K. Rector) 94 pgs; Complete cultural directions..... \$1.35

PIONEER SEED COMPANY

DIMONDALE MICHIGAN

Plantation Gardens

Eleanor Chalfin of Plantation Gardens, Lynchburg, Va., writes us about herbs of which she is quite an extensive grower.

Basel "dries best when it is destemmed as the loose stems stay moist for such a long time, that the leaf loses color and potency." This seem to be a very good point and should be tried. She continues, "we get two crops here from the same plants by trimming, as they come into flower, cutting all but the bottom stems and leaving several leaves to shoot forth again."

About Lavender, Hortus II lists *T. officinalis* as the correct species for the common garden herb and *L. spica* and *L. vera*, as its synonyms. It varies, ofcourse, much as to type, being grown in so many different gardens and plants selected and saved by so many different growers. But there are 4-5 recognized forms, viz., **alba**, with white flowers; **atropurpurea**, a much lower and compact growth than the type. There is a difference in the quality of lavender plants and they should be improved and kept up to standard just as flowers or grains.

Mrs. Chalfin advises to soak Lavender seed a couple of days and then sow it in a well firmed seed bed, which must be kept moist or one can sow in late fall in open ground, when the seed will germinate the following spring.

She mentions the herb gardens at Colonial Williamsburg, and that we should have an article on them. We should, too!

About herb hedges, which was in our June issue, she remarks, "you mention the gray Santolina and not the green. This is equally as useful and lovely. They are slow and difficult from seed but layering and root easy for propagation. Dwarf *L. vera* is also good as well as *Artemisia Schmidtiana* nana and Silver Thyme."

They are laying out an herb display, at Plantation Gardens, "part of which will be a knot-garden and will use low herbs that trim and shear to form the designs."

GINSENG SEED

Fresh seed will soon be ready. It germinates readily if sown as soon as ripe, otherwise it has to be stratified and does not germinate till the following spring.

Packet 50¢ or \$3.00 per 100 seeds.

GOLDEN SEAL (*Hydrastis canadensis*)

The new crop seed is now getting ripe and those wanting to plant some this year should get their order in at once.

Golden Seal grows 1 ft. high and has a thick yellow root stock, broad basal leaves, but the flowers are not exceptionally noticeable. They are followed by beautiful raspberry-like fruits.

They grow best in some shade, a rich moist soil, liberally mulched with decayed material as would be expected in under growth or in the woods.

SEEDS: 25¢ per packet. We will be glad to quote on quantities as long as seed lasts.

PIONEER SEED CO., Dimondale, Mich.

DIANTHUS ENTHUSIASTS

We have had a few requests from readers about a Round Robin on the genus *Dianthus*. This is an excellent genus, easily grown, and with so many possibilities. Not ever having heard of any group studying it, we suggest that those actually interested advise us and we make arrangements for a Round Robin.

SUBSCRIPTION price now \$2.00 per year.

SAXIFRAGA - SCABIOSA - SCILLA

SAUSSUREA. (sau-SEU-ree-ah) Compositae.

Temperate zone plants with heads of blue or purple disk flowers, easily grown from seed. Ornamental in the border.

—**gossypiphora.** Dwarf, 6-12", fls in large umbels, silvery gray; HP..... **SAUS-4.** 25¢

SANVITALIA (san-vi-TAY-le-ah) Compositae.

Small American annuals with small solitary heads and white or yellow rays, brown or purple disks. Light soil and full sun.

—**procumbens, Double.** Creeping Zinnia. Low border pl; hot dry places; orange-yellow Zinnia-like flowers; excellent for the rockery..... **SANT-1.** 15¢

SAPONARIA. (sap-oh-NAY-re-ah) SOAPWORT. Caryophyllaceae.

Easily grown hardy annuals and perennials some of which are excellent for the rockery. Flowers are red, pink or white, in cymes or panicles, native of Europe.

—**calabrica, Mixed.** Small deep rose, white, blood-red fls; 9"; HA..... **SAPO-3X.** 15¢

—**White.** **SAPO-3W.** 15¢

—**Red.** **SAPO-3R.** 15¢

—**ocymoides.** Bright pink fls, flat top clusters; RG and walls; tr; 9"; HP..... **SAPO-8.** 15¢

—**Vaccaria rosea.** Pale pink fls, ½" ac; in loose cymes; 3 ft; HA..... **SAPO-13R.** 15¢

—**White.** White flowered form..... **SAPO-13W.** 15¢

SAXIFRAGA. (sak-SIF-rah-gah) SAXIFRAGE, ROCKFOIL. Saxifragaceae.

A very large genus much prized as flowers in the rockery and border. They are not hard to grow from seed and require the usual attention of all perennials. Sow seed either late in the fall or early in the spring for best results, altho they can be planted at other times of the year.

—**aizoon, Mixed.** Dense basal rosettes; fls ½" ac; 18 in. tall; HP..... **SAX-4X.** 25¢

—**dense.** Rosettes very small and silvery; fls creamy; HP..... **SAX-4D.** 25¢

—**minor.** Small silvered rosettes and short spikes; white fls; HP..... **SAX-4M.** 25¢

—**rosea.** Bright pink fls; HP..... **SAX-4R.** 25¢

—**arguta.** White fls with yellow spots; very small, panicles; 8"; HP..... **SAX-22.** 25¢

—**cartilaginea.** White, rose or purple fls; lvs in rosettes; 9"; HP..... **SAX-54.** 25¢

—**crustata.** Dense tufts; white fls, ½" ac; 1 ft; HP..... **SAX-68.** 25¢

—**cuneifolia.** Lvs rosettes; white fls, yellowish at base; 1 ft; HP..... **SAX-70.** 25¢

—**infundibuliformis.** Spoon shaped lvs; HP..... **SAX-70F.** 25¢

—**decipiens:** see **S. rosea** for correct listing.

—**Godseffiana.** Deep yellow hybrid; 4"; HP..... **SAX-100.** 25¢

—**trifurcata.** (decipiens) Milk white fls; lvs kidney-shape; 8"; HP..... **SAX-194.** 25¢

—**Mossy White.** An English white variety..... **SAX-194M.** 25¢

—**H. S. Stokes.** Brilliant red, not entirely true from seed; HP..... **SAX-194S.** 25¢

—**umbrosa.** White or pink fls; 1 ft; HP..... **SAX-195.** 25¢

—**virginensis.** Lvs in rosettes; fls white, ½" ac; 1 ft; HP..... **SAX-200.** 25¢

—**Saxifraga Blend.** All kinds mixed..... **SAX-X.** 25¢

SCABIOSA. (skay-bee-OH-suh) MOURNING BRIDE, PINCUSHION FL. Dipsacaceae.

A very popular garden flower for sunny positions. Sow seeds early indoors or later in the open ground. In the South plant the annuals late in the fall. Pinch back annuals for bushy plants and by keeping flowers cut they will bloom all summer.

—**atropurpurea.** Sweet Scabious. Erect HA in many forms; 3 ft..... **SCAB-3X.** 15¢

—**Imperial Giants.** Very large double fls; frilled; 3-4 ft; HA..... **SCAB-3G.** 15¢

—**Blue Moon.** Large dark lavender-blue without raised center..... **SCAB-3M.** 15¢

—**Giant Hybrids.** Large fls; compact plants; excellent cutfls..... **SCAB-3H.** 15¢

—**Tall Large Flowered, Mixed.** Excellent garden strain and cut..... **SCAB-3X.** 15¢

Definitely a much better strain for cutting. Size of bloom, length of strong wiry stems and purity, are especially noticeable; recommended to market growers.

EIGHT SPECIAL COLORS:

—**Ageratum Blue.** Pretty light blue..... **SCAB-3WA.** 20¢

—**Azure Fairy.** Fine color, azure-blue..... **SCAB-3WF.** 20¢

—**Loveliness.** Pretty salmon-rose shades..... **SCAB-3WL.** 20¢

—**Orchid Shades.** Soft rose-lavender blends..... **SCAB-3WR.** 20¢

—**Peach Blossom.** Peach blossom pink..... **SCAB-3M.** 15¢

—**Above Blended.** Hand made blend of varieties in right proportions..... **SCAB-3WX.** 15¢

Bulk Prices: Any of above, Oz. 75¢; ¼ lb. \$2.00; Lb. \$7.00.

—**caucasia, House Hybrids.** One of the loveliest perennials; shades blue..... **SCAB-6H.** 20¢

—**Columbaria, Mixed.** Delicate lavender and pink fls; 18"; HP..... **SCAB-7X.** 20¢

—**Lavender.** Same in delicate lavender..... **SCAB-7L.** 20¢

—**Pink.** Same in delicate pink..... **SCAB-7P.** 20¢

—**graminifolia.** Pale blue fls in flat heads, 1½' ac; 1 ft; HP..... **SCAB-18.** 30¢

—**ukranica.** **SCAB-18.** 30¢

—**Perennial Scabiosa Mixed.** All the perennial species..... **SCAB-PX.** 20¢

SCHIZANTHUS. (sky-ZAN-thus) BUTTERFLY FLOWER. Solanaceae. G 2-4 wks.

Beautifully marked and unusually formed flowers in chamois, rose, lavender and purple shades with fern-like foliage. Excellent for pot culture the year round or in partly shaded beds outdoors, doing best in a cool climate. Pinch tops to induce bushy growth; for winter flowers, start in Sept. for blooms in Feb. to May. For summer flowers sow seeds indoors in March. Set out in late May. Schizanthus makes up nicely in corsages and last well. They are annuals or biennials; 18 inches tall.

—**Hybrids:** Listed here are all the popular varieties usually from hybridization.

—**Crimson Cardinal.** A new, highly recommended English novelty..... **SCHZ-1C.** 20¢

—**Dr. Badger's Hybrids.** Brilliant range, no whites; golden blotch; 1 ft..... **SCHZ-1B.** 20¢

—**Chislehurst Hybrids.** Beautiful strain in violet and purple shades..... **SCHZ-1Z.** 15¢

—**Hurst's Monarch.** Compact English strain; fine color range..... **SCHZ-1H.** 20¢

—**wisetonensis.** Hybrid in all shades and upper lip suffused yellow..... **SCHZ-1W.** 20¢

—**Butterfly Mixture.** Brilliant range; all kinds; 1 ft..... **SCHZ-X.** 15¢

SCILLA. (SIL-ah) SQUILL. Liliaceae.

Attractive and popular bulbous plants with narrow basal leaves and sprays of starry flowers in blue, white or pink. Ideal for rockery, woodland or border; they also can be grown in pots. They are hardy in the North; the bulbs are delivered in fall.

—**bifolia.** Dwarf deep blue, blooming in Feb..... **BULBS:** 10-55¢; 100-\$3.00

—**hispanica:** Spanish Bluebell; (Scampanulata); all mixed..... **BULBS:** 10-50¢; 100-\$4.00.

—**alba maxima.** Wood Hyacinth. Naturalizing; shade; white..... **BULBS:** 10-60¢; 100-\$5.00.

—**Arnold Prince.** Deep rose; long trusses..... **BULBS:** 10-60¢; 100-\$5.00.

—**Blue Queen.** Early pale blue; pretty..... **BULBS:** 10-60¢; 100-\$4.75

—**Excelsior.** Strong grower; bright blue large spikes..... **BULBS:** 10-60¢; 100-\$5.00

....**SILLAS:** Continued on Page 68.

PIONEER SEED COMPANY — DIMONDALE MICHIGAN

TIARELLIA Wherryi

This is a very nice rockery plant and is named after Dr. Edgar T. Wherry, professor of Botany at the University of Penn.

It grows about a foot high and sends up racemes of feathery white flowers for 2-3 months, May to July.

It has been a sensation in English rock gardens but is little known in this country.

There is not enough seed to make a listing of it but we might be able to supply a few seeds to any one well equipped to grow a few plants. It is a shy seeder.

South Rhodesian Seeds

Seeds have been collected of the very decorative tree, *Peltophorum africanum*. It is not a very tall tree, has feathery foliage and the flowers light yellow in terminal panicles, fragrant.

Acrocephalus sericeus, was incorrectly listed in the June issue as a climber. It is a shrubby, compact, deciduous plant, and grows pale blue flowers on the sandy soils of Rhodesia but a deeper color on the red clays. Its flower heads are corymbose.

Besides the above there are *Dichrostachys nyassana*, *Peltophorum africanum*, *Polygala apopetala*, *Protea angolensis*, its flowers are pinkish and its good, *Acacia farnesiana*, *Bolusanthus speciosus*, *Grevillia Banksii*, *Heteromorpha trifoliata*, this is a very attractive bush with white flowers, 6-8 feet tall.

Many of these showy Rhodesian flowers are not grown in the U. S. They, too, are rather tender and would not stand the northern winters, but some might be wintered over indoors. Southern Florida and California and even up the Western Coast, they will make good out door plants.

The ten kinds mentioned above which lists at 25¢ per packet, but to those wishing to try them out, the Pioneer Seed Company will send a packet of each for \$1.75.

FLOWERS BETWEEN MAY 15-JUNE 15

A reader from Hamilton, Ohio wants to know what hardy perennials of the cutflower type, will flower during this period.

Hamilton is very close to the Ohio River Valley and I have noticed how much earlier the growth of plants was in this section as compared to that just a few miles to the north.

Will one of our Ohio River Valley readers give a list of such perennials? She mentions Daisies, Iris and Umbellatum Lilies but they are through blooming by the last week in May for her.

COVER PICTURES

A letter recently received from Elizabeth St. J. Ravenel of Savannah, Ga., in which she makes some very nice comments on our magazine, suggests to the writer the possibility of our using a picture of one of their lovely Southern gardens.

I have been in Savannah two or three times and just when the gardens were so pretty.

A good picture, tho, is not easy to find, but if any of our Savannah readers have a suitable picture we would be pleased to use it with the description and history of the garden.

ERIGERON GLAUCUS

It is one of the best of the Daisy-like flowers of its color. The blooms which are produced singly on stems a foot long, are large in size and they flower in succession for much of the summer and autumn.

SCHIZANTHUS - SEDUM - SENECIO

SCILLAS: Continued from page 67.

- Peach Blossom. Pretty pink variety..... **BULBS: 10-60¢; 100-\$5.00**
- White Triumphant. Pretty strong growing white..... **BULBS: 10-60¢; 100-\$6.00**
- siberica. Deep blue; ½" ac; nodding racemes;..... **BULBS: 10-60¢; 100-\$4.50; 1000-\$25**
- Spring Beauty. Large pure white..... **BULBS: 10-70¢; 100-\$5.50**
- Scilla Blend. Mixture of all varieties in seed **SILL-X. 20¢**

SCHINUS. (SKY-nus) Anacardiaceae.

- Ornamental trees with small flowers in racemes or panicles, followed by fruits. Not hardy in the North; planted as lawn specimens in South; can be grown in greenhouse.
- Molle. Cal. Pepper T, Peruvian Mastis T. Ev to 20 ft; yellowish fls; T tr **SCHN-6. 25¢**
- terebinthifolius. Brazilian Pepper T; Xmas Berry T; to 20 ft; red fr..... **SCHN-8. 25¢**
- Schinus Mixed. Both kinds..... **SCHN-X. 25¢**

SCHIZOSTYLUS. (scky-ZOSS-til-iss) **CRIMSON FLAG, KAFIR-LILY** Iridaceae.

- A greenhouse flower in the North for cutflowers. Flowers in spathes, red.
- coccinea. Deep crimson; 2" ac; lvs grass-like; 2 ft; TP..... **SCHI-1. 25¢**

SCIADOPITYS. (sy-ad-DOP-itiss) **UMBRELLA PINE.** Taxodiaceae.

- Japanese evergreen tree, slow growing and ornamental.
- verticillata. Hardy up to Michigan; lvs small and scale-like..... **SCIA-1. 35¢**

Seaforthia: see **Archontophoenix.**

SCROPHULARIA. (skrof-yew-LAY-re-ah) **FIGWORT.** Scrophulariaceae.

- Perennial plants rarely planted in the border or for medicinal purposes; hardy.
- chrysanthea. Greenish yellow fls; 2 ft; HB or HP; Caucasus..... **SCRO-3. 25¢**

SECURIDACA. (see-q-RID-ah-see) **RHODESIAN VIOLET TREE.** Popygalaceae.

- Rhodesian Violet Tree. Suitable for the South only.
- longipendunculata. Very beautiful T; small pea-like purple-pink fls; frag. **SECU-1. 30¢**

SEDUM. (SEED-um) **STONE CROP. LIVE-FOREVER.** Crassulaceae.

- Succulent or fleshy, erect or prostrate plants, mostly hardy, easily grown and popular for the rockery, walls and such places. No rock garden is complete without Sedums; they are very appealing to children. Sow seeds any time and treat like any perennial. Some are grown indoors. They thrive in sunny positions, light soils and dry places.
- acre. Vigorous, spreading; mats rich green; golden stars; 4"; HP..... **SEDM-2. 20¢**
- album x murale. Purple fol; pinkish fls; creeping mat forming; 8"..... **SEDM-8M. 25¢**
- caeruleum. Blue flowered; 4 in; HA..... **SEDM-28. 20¢**
- Leibergii. Fine RG; fleshy spoon-shaped lvs; golden stars; 10"; HP..... **SEDM-76. 25¢**
- oreganum. Green lvs; bright yellow fading to pink; HP..... **SEDM-100. 20¢**
- Rosea. Yellowish or greenish fls; 1 ft; HP..... **SEDM-127. 25¢**
- Tatarinowii. White to pink fls; 8 in; HP; China..... **SEDM-158. 25¢**
- Sedum Mixture. All kinds mixed..... **SEDM-X. 25¢**

SEMPERVIVUM. (sem-per-VY-vum) **HOUSE-LEEK.** Crassulaceae.

- Succulent plants or sub-shrubs with thick fleshy leaves and very much like the Sedums. Flowers are in dense heads, white, pink; greenish, yellow or purple. They are excellent for the rockery and thrive in sandy soils, sunny dry positions. The tender sorts make excellent house plants. All easily grown from seed sown like any perennial.
- caespitosum. (Aeonium c.) Tender sh; lovely golden fls..... **SEMP-16. 30¢**

SENECIO. (se-NEE-she-oh) **GROUNDSEL. CINERARIA.** Compositae.

- A large and variable genus including shrubs and trees. They are usually easy to grow from seed in a good loamy soil. The greenhouse Cinerarias correctly belong here. Many of the herbaceous sorts are grown for their flowers.
- diversifolia. Low growing sh; yellow fls; HP..... **SENE-21. 25¢**
- doricum. Orange Daisy. 1 ft; RG; HP..... **SENE-24. 25¢**
- elegans. Fls heads loose corymbs, rays purplish, disks yellow; 2' HA..... **SENE-29. 15¢**
- jacqmontiana. Collected in the Himalayas; HP..... **SENE-30. 50¢**
- macroglossus. Cape Ivy. Bright yellow daisies; herb. cl; TP..... **SENE-43. 25¢**
- Purshiana. Western sp; light gray fol; bright yellow heads; 8"; HP..... **SENE-58. 20¢**
- scandens. Climber to 20 ft; loose panicles; yellow ray fls; 3-4 ft; HHP..... **SENE-66. 20¢**
- Senecio Mixture. All species mixed..... **SENE-X. 20¢**

SERRATULA. (ser-RA-tu-la) Compositae.

- Perennials allied to Centaurea. Flowers are either single or in corymbs, of disk flowers. Good in the border.
- coronata..... **SERR-1. 25¢**

SETARIA. (c-TAY-re-ah) Gramineae.

- Tender annual and perennial grasses; start indoors early and transplant outside when frost danger is over.
- italica. Fox-tail Millet. Ornamental grass; 5 ft; TA..... **SETA-1. 15¢**

SHAMROCK.

- True Irish..... **SHAM-1. 20¢**

SEQUOIA. (se-KWOI-ah) Taxodiaceae.

- The large evergreen tree of California growing to 300 ft. They grow only near the sea where the fogs occur.
- gigantea. Giant Sequoia (Sequoiendron) **Oz. \$2.00 SEQ-1. 25¢**
- sempervirens. Redwood. (Calif. seed only)..... **Oz. \$1.75. SEQ-2. 25¢**

SHEPHERDIA. (she-PUR-de-ah) Elaeagnaceae.

- Shrubs and small trees, adapted to dry rocky soils, very hardy and they do well near the seaside. Sow seeds in the fall or stratify. Will quote by lb. if interested.
- argentea. Buffalo Berry. Thorny; 18"; very hardy hedge plant..... **SHEP-1. 25¢**
- canadensis. Thornless; fruit red or yellow; very hardy; 8ft..... **SHEP-2. 25¢**

SIDALCEA. (si-DAL-see-ah) Malvaceae.

- Flowers are like miniature Hollyhocks, in spikes or clusters. Thrive in a rich sandy soil. The perennials bloom over a long period; good for the flower border.
- Stark's Hybrids. Excellent color range; 3 ft; HP..... **SIDA-55. 20¢**

This seed list continues from page to page and from issue to issue and runs alphabetically.

PIONEER SEED COMPANY

DIMONDALE MICHIGAN

Ideal Seed Germinator

For a great many seeds, especially the small ones and those requiring some time to germinate, the "casserole" method is the best for the average flower grower.

The ordinary refrigerator dishes that have the flat covers and that run from 3-4 inches wide and 5-6 long and they should be at least 3 or 4 inches deep.

This type of dish will hold a layer of soil in the bottom in which the seedlings can root but on top of the soil there should be at least an inch layer of milled sphagnum moss on which the seeds are sown. At the start the soil can be placed in the dish in its natural condition, pressed down firmly and then the milled sphagnum, which has been thoroughly soaked a day before; wring out any excess water and then shake into the dish pressing it down firmly. The seed then is sown thinly in the surface of the moss. Such seeds that are as large as Pansies, could be covered with a little dry sifted moss to cover lightly but those seeds that do best in a dark place while germinating, as does the Delphinium, these should be covered with a fine layer, say 1/8 inch thick. Do not press this down but all seed should be lightly but firmly pressed into the soil or moss that they all have the same conditions and all will germinate at the same time.

On many seeds, if you have trouble with molds, the dish and its contents can be set in a pan of water and heated in the oven for an hour or so at 250 degrees. If a pressure cooker is available it is the best way to sterilize and the more time given the better.

Use Water Containing Oxygen

Do not use tap water as it is drawn from the tap; it lacks oxygen and may contain chlorine; if it is the only available water, let stand a day or two in the sun before using and if your dishes that were used are clean there should be no reason to boil the water.

After the seeds have been sown, the top placed on the dish, the next step is the proper place to keep it till germination has started. This depends upon the seed planted, of course. First the temperature; if it should be 60 or above, than a good place is in the living room and the higher up the warmer it will be; if the seed requires 50 degrees and some even need it lower, than a room in the house that is not so well heated is the correct place. You also should keep in mind if the particular seed is one that prefers light or darkness while germinating; most flowers are not particular but some are.

The cover can be left on the dish during the waiting period; if moisture condenses on the top it indicates a too rapid change in temperature and a more even one should be found but not much, if any, harm can come from the condensed water dripping back on the seed if there was no excessive quantity of water used to start with. Of course watch for molds and at the first sign it may be possible to save the seed by placing them in the sun for a few hours and if the seed was lightly covered at the start, it will be an added advantage now.

As the germination starts you will have to use some knowledge of your flowers needs. Many tropical flowers do best in the closed pans while others should be given air at once. Of course moving the seedling to the light is very necessary but again there are those that do best if this is done slowly but most of the northern natives do best in full light; woodland flowers, one would want to be careful about too strong a light at the start at least.

We would like to have the experiences of our readers on this subject.

Your July Garden Record

These two columns have been reserved for your own garden record for the month. Make notes on what should be done next year at this time; new plants added this month and many other reminders that will be of value in your gardening operations. The SAIER'S GARDEN MAGAZINE is designed to be useful next year as well as this and copies will be valuable for future references. Indexes will be provided in later issues so that a quick reference can be made to items of interest, especially descriptions and culture.

MY FLOWER GARDEN

When I got the idea of this page it was my intention to use this column with notes from our garden to go along side your notes on your garden. That ought not to be a hard task to do but I find that the hoe is always in my hand instead of the pencil.

Here it is nearly August and flowers are beginning to get scarce. However, a garden should not always be just flowers. Many plants are pretty even when not in flower and the pleasure of working in the garden, also, is an important part to gardening. No matter where I stop in the garden, there is something to interest me.

We plant Latham Red Raspberries as a sort of windbreak in the flower garden and, of course, there are more berries than we can pick, so many people pick on shares. So far this year not a single one of these pickers has stopped to look at all the pretty flowers growing along side the raspberries; not one person in 50 is interested in flowers!

Belamcanda chinensis

Belamcanda chinensis or Blackberry Lily is now in flower. It has the appearance of a group of small flowered Iris and a group of 6-10 plants should be in every border planting. I like the blackberry-like fruits that form in the fall and if cut off with an inch or two stems, before they get too ripe and placed in a shady place to dry, you will find them very attractive for pinning on women's coats, etc.

The lilies are fast going out of bloom but the Estate Lily is the best now; it really is a pretty flower and exactly like the Easter Lily of the florist, if not better; due to its height, 2-3 feet do not plant it next to any lily that is taller, it makes its best showing in front of some dark green foliage shrubs or plants.

We grow some pretty *Anthemis* and if you have an unsightly bank or waste place that is dry and the soil poor, *Anthemis* is your flower. It is not extra for cutting but makes a pretty showing when in flower and the foliage is also attractive. If the soil is too rich the plants will fall over and then are unsightly.

Allium Porrum

There are many flowering *Alliums* but *A. Porrum* is now in flower, standing 5 feet tall, with large round heads 3-4 inches across. In case you do not already know, this is the common Leek but it is better to speak of it as *Allium Porrum* when talking with visitors. Planted in a group of 10-15 plants set 5-6 inches apart in the border, they will make a showy display.

Euphorbia epithymoides or as it was recently called, *E. polycroma*, and I like the latter name best, is now quite a large plant, 3-4 feet tall and also across. If you would give it a hair cut after it flowers early in the spring, the foliage now would be bright and showy in the border. It is a very pretty plant with its yellow flowers, early in the spring.

No garden border of any size should lack *Achillea filipendula*. Right now they are in full bloom and their large deep yellow heads can be seen for quite a distance. They are 4-5 feet high and a group of 15-20 plants 3 feet apart, would be showy at this time of the year and, too, the foliage is always attractive. Not too rich a soil is best and this also would be a good plant for an embankment.

We got our Callas in late but they stand 2 feet high now and in full flower. The correct name for these is *Zantedeschia*, the garden Calla; the species in flower for us now

Continued on Page 73.

Amateur and Commercial

Reading a recent report of the flower show held at Chelsea, England, where some Italian commercial growers went to a great expense of shipping and putting on display, an elaborate collection of Cacti, so good that the King and Queen "spent considerable time admiring them", but not a single word was given out in the reports as to who these exhibitors were. It is very much like our rewarding provident people with pensions to be paid by the savings of the industrious.

This seems to be a common fault all over the world and just because an exhibitor happens to be engaged in business, he should be ignored, when really, he is so interested in the particular flower or exhibit, that he risks his livelihood on it and must, thus, be well posted on its details, something an amateur very often lacks.

Any exhibit is fortunate, that can secure a commercial exhibit. This also brings to mind the horticultural exhibits at the many local fairs. All the main displays are made by exhibitors who stage a complete exhibit and fair managers look for these exhibitors just as they do for the shows so necessary for a successful fair. Many of these exhibitors also make entries in the single classes, that the fair appears to have a large exhibit. This could be a good undertaking for some of our readers who are good growers and have extensive plantings as well as time to gather local grasses, flowers and vegetables.

The English report ends with the very unappreciative remark, "Anyway, we hope the Italian cacti growers were sufficiently encouraged to come again!"

OUR COVER PICTURE

The view of Quedlinburg in Germany has long been the center of both flower and vegetable growing for Europe. Before the war four of the largest seed growing establishments were located here, all of them over 100 years old. It was from here that many of the harder to grow flower seeds were produced.

Quedlinburg is located in the Eastern Zone of Germany and these firms have all been taken over by the present form of government there and little intercourse is had but we hope this will all change soon and that things will be normal again.

MARGUERITE CARNATIONS

Any seedlings or young plants of Marguerite Carnations can be lifted in August and potted for the conservatory when they will probably flower well in November and December.

Do not allow them to grow too tall, pinching off the tallest shoots will keep them in bounds. This sacrifices the earliest bloom but will form a compact plant and better bloom later on.

If you should not have plants in August, you can sow seeds during the month in a cold frame, pricking out and potting the seedlings as quickly as possible and then taken into a warmer house in January where they will bloom in March or April.

SQUEEZE ROOTS IN POTS!

While it is not the usual practice to squeeze roots into pots, it may be necessary where the plant has not bloomed well for you.

In doing this always use a good sweet potting soil with plenty of silver sand in it.

SUBSCRIPTION price now \$2.00 per year.

SOLANUM - SOPHORA - SORBUS

This seed list continues from page to page and from issue to issue and runs alphabetically.

SILENE. (sy-LEE-nee) CATCHFLY, CAMPION. Caryophyllaceae.

Annual, biennial and perennial plants in many species, most showy and valued both in the border and rockery. The seed of the annuals can be sown in the fall, which will produce earlier flowers.

- alpestris.** Glistening white fls; ½" ac; panicles; June-Aug; 6 in; HP..... **SILE-4.** 20¢
- flora pleno.** Double flowered form..... **SILE-4D.** 25¢
- armeria.** Bright magenta fls; 1 ft; HP; sow late fall or ey sp..... **SILE-6.** 25¢
- Peach Blossom.** Compact, flesh colored fls in drooping rac; 10"; HP.... **SILE-6B.** 25¢
- pendula.** Rose and white fls; 20"; HP..... **SILE-6P.** 25¢
- New Art Shades.** Dwarf, double; RG; HP..... **SILE-6A.** 20¢
- Fortunii.** Rose or white fls; best grown as HA; Sept; 3 ft; HP..... **SILE-37.** 15¢
- Hookeri.** White or pink fls; 2" ac; lovely for RG; 5 in; HP..... **SILE-48.** 25¢
- maritima.** Pretty white fls; RG; 5"; HP..... **SILE-62.** 15¢
- pendula Rose.** Rose fls; ½" ac; drooping racemes; 10 in; HA..... **SILE-75.** 15¢
- Bonnetti.** Purplish fls; stems brow-red; 10"; HA..... **SILE-75B.** 20¢
- Byou.** Double salmon-rose fls; 10"; HA..... **SILE-75Y.** 20¢
- White.** Attractive white; 10 in; HA..... **SILE-75W.** 20¢
- Triumph.** Compact double crimson; HA..... **SILE-75T.** 20¢
- Shafta.** Rosy purple fls; RG; 6 in; HP..... **SILE-100.** 20¢

SISYRINCHIUM. (sis-ir-RIN-ee-um) BLUE-EYED-GRASS. Iridaceae.

American grass-like perennials with small blue or yellow flowers. Attractive in colonies in open rather moist places. They are easily grown.

- angustifolium.** Blue stars with yellow eyes; 6"; RG; HP..... **SISY-1.** 25¢
- Bermudiana.** Large blue fls; sunny RG; 9"; HHP..... **SISY-2.** 25¢
- californicum.** Bright yellow fls, ½" long; 1 ft; HP..... **SISY-7.** 25¢
- Douglasii.** Best; large violet to white fls; 8"; HP..... **SISY-10.** 25¢
- grandiflorum.** see **Douglasii.**
- striatum.** Yellow fls striped; 3 ft; attractive; HP..... **SISY-23.** 25¢
- Sisyrinchium Mixture.** All species mixed..... **SISY-X.** 20¢

SKIMMIA. (SKIM-mee-uh) Rutaceae.

Evergreen shrubs native of China and the Himalayas, with small white flowers in terminal panicles. An ornamental shrub for the South, not hardy north but can be grown indoors as a pot plant.

- japonica.** Bright red fruits; 5 ft; HHP..... **SKIM-1.** 25¢

SMILACINA. (smy-lah-SYE-nah) FALSE SOLOMON'S SEAL. Liliaceae.

Perennial rhizomatous plants; small white or greenish flowers in terminal racemes or panicles. Moist, part shady places; nice in colonies; easy

- stellata.** Wild Lily-of-the-Valley. 10"; May-June; HP..... **SMIL-5.** 20¢

SNAPDRAGON: see **Antirrhinum.**

SOLANUM. (soh-LAY-num) NIGHTSHADE. Solanaceae.

A very large genus to which the potato and egg plant belong. It is a rather confused genus and the interesting species to the flower grower are the ornamental berried species, such as the popular Jerusalem Cherry. Sow seeds of the annuals where they are to grow; the perennials can be started indoors early or handled like any other tender perennial. They are easy to grow, many making excellent indoor pot plants.

- aculeatissimum.** Decorative plant having bright scarlet fr; 2 ft; TP..... **SOLN-1.** 25¢
- Capsicastrum.** Scarlet or orange pointed fruits ½" ac; 2 ft; TP..... **SOLN-10.** 25¢
- Hendersonii.** Hybrid; orange-red oval fruits; nice pot pl; 15"; TP..... **SOLN-23.** 25¢
- marginatum.** Yellow globose fruits; 1½" ac; spiny sh; to 4 ft; TSh..... **SOLN-32.** 25¢
- nigrum.** Black fruits used in preserves, pies, etc; forms known as Garden Huckleberry, Wonderberry; 2½ ft; TA..... **SOLN-35.** 25¢
- Pseudo-Capsicum.** Jerusalem Cherry. Scarlet or yellow fr; 2 ft; TP; Mixed
- The popular Xmas Cherry pot plant of the florist..... **SOLN-36X.** 25¢
- Clevelandii.** Select foliage; bright red round fr; 18"; TP..... **SOLN-36C.** 25¢
- Flavacek's Masterpiece.** Compact 15" var for pots; bright red fr;..... **SOLN-36H.** 25¢
- Hendersons New Paterson.** Compact form; bright scarlet fr; 15"..... **SOLN-36P.** 25¢
- texanum.** Spineless form; Scarlet Tomato; 3 ft; TA..... **SOLN-45.** 25¢
- verbascifolium.** A tree to 30 ft; fruits yellow; for the S; TP..... **SOLN-49.** 25¢
- Solanum Mixture.** All kinds mixed..... **SOLN-X.** 20¢

SOLDANELLA. (sol-dan-NEL-ah) Primulaceae.

Perennial plants with nodding blue, violet or white fringed flowers native of the Alps. They thrive in moist shady places in the rockery.

- alpina.** Roundish lvs; pale blue fls in umbels; 6"; HP..... **SOLD-1.** 25¢

SOLIDAGO. (sol-id-DAY-goh) GOLDENROD. Compositae.

Erect perennials with golden yellow Goldenrod flowers, many of which are excellent border plants. Do not fertilize them too much; easily grown from seed.

- elongata.** Compact fl clusters, yellow; 3 ft; HP..... **SOLI-17.** 20¢
- missouriensis.** Dwarf sp; 18" tall; golden heads in panicles; HP..... **SOLI-35.** 25¢
- Solidago Mixed.** Above mixed..... **SOLI-X.** 20¢

SOPHORA. (sof-FOH-ruh. Leguminosae.

Showy ornamental woody plants when in bloom; flowers in terminal panicles or racemes, followed by cylindrical or 4-winged pods. They are not hardy in the North, especially the evergreen species. Write for prices in quantity if interested.

- japonica pendula.** Japanese Pagoda Tree. To 50 ft; hardy in N..... **SOPH-3.** 25¢
- secundiflora.** Mescal Bean. Frag; violet-blue fls; ev sh to 30 ft; Tex..... **SOPH-6.** 25¢
- vicifolia.** Dec. sh to 8 ft; bluish violet fls in racemes; hardy in N..... **SOPH-9.** 25¢
- Sophora Mixed.** All kinds mixed..... **SOPH-X.** 20¢

SORBUS. (SOR-bus) MOUNTAIN ASH. Rosaceae.

Deciduous shrubs and trees, hardy in the North. They thrive in dry soil. Sow seeds when ripe or stratify over winter. Ask for bulk prices if interested.

- americana.** American A. To 30 ft; hardy..... **SORB-2.** 25¢
- Aria.** White Bean-tree. To 50 ft..... **SORB-5.** 25¢
- commixta.** To 25 ft; native of Japan and Korea..... **SORB-9.** 25¢
- Aucuparia.** European Mountain Ash. To 50 feet..... **SORB-6.** 25¢
- domestica.** Service Tree. To 50 ft; native N. Af. W. Asia..... **SORB-13.** 25¢
- terminalis.** Wild Service T. To 50 ft; native of N. Af; Asia Minor..... **SORB-32.** 25¢

This seed list continues from page to page and from issue to issue and runs alphabetically.

PIONEER SEED COMPANY — DIMONDALE MICHIGAN

SWEET PEAS FOR FALL SOWING

SPECULARIA. (spek-u-LAY-re-ah) Campanulaceae.

Annual plants resembling Bellflowers, excellent for the rockery, border or for edging; easily grown from seed.

—**Speculum-Veneris.** Venus Looking Glass. Edging; violet-blue; 12"; HA.... **SPEC-3.** 20¢

SPARTIUM. (SPAHR-tee-um) **SPANISH** or **WEAVER'S BROOM.** Leguminosae.

Ornamental shrubs native of S. Europe and hardy to Ohio river and the Pacific Coast.

—**juncum.** To 10 ft; rush-like branches; yellow fls; TSh..... **SPAM-1.** 25¢

SPRAGUEA. (SPRAYG-ee-ah) **PUSSY PAWS.** Portulacaceae.

Small alpine plants with rosettes of thick fleshy evergreen leaves and heads of fluffy pink flowers on prostrate stems; excellent in rockery in light shade.

—**multiceps.** Dense heads rose-purple fls; 6"; native Wash-Wyo..... **SPRG-1.** 25¢

STAPHYLEA. (staf-il-LEE-uh) **BLADDER-NUT.** Staphyleaceae.

Ornamental shrubs or small trees, white flowers in terminal panicles and bladder-like fruits. Most are hardy in the North; they prefer partial shade, moist rich soil. Sow seeds when ripe or stratify till spring. Ask for bulk prices if interested.

—**irifolia.** To 15 ft; fls in nodding panicles; fr 3" long; native E. U. S..... **STAP-9.** 25¢

STAR OF TEXAS: see **ZANTHISMA.**

STATICE: This genus has been recently reclassified and all its species are now in either **Ameria** or **Limonium**, which see.

STEWARTIA. (stew-ART-ee-uh) Theaceae.

N. American and Asian shrubs and trees, with showy white flowers. They are ornamental, fairly hardy in the North; mixture of peat and loam soil best; ask bulk pr.

—**koreana.** Tree to 50 ft; Korea..... **STEW-1.** 75¢

—**monadelpha.** Tree to 80 ft; Japan..... **STEW-4.** 50¢

—**Pseudo-Camellia.** Tree to 50 ft; fls 2½" ac; white stamens; orange ant.... **STEW-7.** 25¢

STIPA. (STY-pa) **SPEAR** or **FEATHER GRASS.** Gramineae.

Perennial ornamental grasses, with awn-like spikelets borne in panicles and very popular as an ornamental grass.

—**pennata.** Very pretty; tufted to 3 ft; dense plumes; HP..... **STIP-3.** 20¢

STOCKS: see **Mathiola** and **Malcolmia.**

STREPTOCARPUS. (strep-toh-KAHR-pus) **CAPE-PRIMROSE.** Gesneriaceae.

They are of easy culture and thrive in a cool greenhouse. Sow seeds in Feb. or March for flowering plants the following autumn and winter.

—**Hybrids.** Gold Medal Strain..... **STRP-4.** 35¢

STYRAX. (STYE-rax) **STORAX.** Styracaceae.

Shrubs and trees with showy white flowers in racemes followed by fruits. Few are hardy enough in the North. They thrive in light soils. Ask for bulk prices.

—**americana.** To 10 ft; hardy to N.Y.; native of Va..... **STAX-1.** 25¢

—**japonica.** To 25 ft; fls fragrant; hardy in North..... **STAX-6.** 25¢

—**Obassia.** To 30 ft; fls frag; hardy in N; Japan..... **STAX-8.** 25¢

—**Styrax Mixed.** Above kinds mixed..... **STAX-20.** 20¢

SWEET PEAS....(*Lathyrus odoratus*) Leguminosae.

Germ. 10 days.

In the North, Sweet Peas should be started very early in the spring, sowing the seed where they are to grow and about 3" apart in the row. In the South and on the West Coast, they are planted in the fall, when they flower early in the spring. To keep them blooming, the flowers must not be allowed to go to seed. See special articles on further cultural directions. You will find that the varieties offered here are the best.

SPENCER VARIETIES: The most popular for garden growing, especially in the North. The varieties listed represent the very best and latest strains; there are none better.

—**Bonni Briar.** Large rose-pink..... **SPEA-1BB.** 15¢

—**Burpee's Best White.** White seeded..... **SPEA-1BW.** 15¢

—**Capri.** Clear silver blue; excellent..... **SPEA-1C.** 15¢

—**Charming.** Pretty flushed rosy cerise..... **SPEA-1CM.** 15¢

—**Chieftain.** Pure satiny mauve..... **SPEA-1CH.** 15¢

—**Elsree.** Bright pink on cream, shaded darker..... **SPEA-1EL.** 15¢

—**Excelsior.** Scarlet-orange, wings shaded darker..... **SPEA-1EX.** 15¢

—**Flagship.** Deep navy blue with darker shading..... **SPEA-1F.** 15¢

—**Gigantic.** (G. M.) White, black seeded; very good..... **SPEA-1G.** 15¢

—**Gold Crest.** Orange tinted salmon, shading darker..... **SPEA-1GC.** 15¢

—**Grand Slam.** Cerise-scarlet, suffused..... **SPEA-1GS.** 15¢

—**Mastercream.** Cream, black seeded..... **SPEA-1M.** 15¢

—**Mrs. A. Searles.** Bright salmon-cerise..... **SPEA-1MS.** 15¢

—**Mrs. R. Bolton.** (NEW) Deep almond pink, very large flowered..... **SPEA-1MB.** 15¢

—**Patricia Uwun.** Salmon-pink suffused gold..... **SPEA-1P.** 15¢

—**Pink Frills.** (Gold Medal Winner) Rich salmon-pink on cream..... **SPEA-1PF.** 15¢

—**Radar.** Best rich salmon-pink..... **SPEA-1R.** 15¢

—**Red Boy.** Pure rich crimson, long stems; vigorous..... **SPEA-1RB.** 15¢

—**Welcome.** Dazzling scarlet..... **SPEA-1W.** 15¢

—**What Joy.** Deep rich cream, white seeded..... **SPEA-1WJ.** 15¢

—**Youth.** White, edged rose-pink..... **SPEA-1Y.** 15¢

—**Formula Blend.** Hand made blend of the above named varieties..... **SPEA-1XF.** 15¢

PRICES: All above; **Oz. 25¢; ¼ lb. 75¢; Lb. \$2.25, prepaid**

—**Unrivaled Mixture.** Contains a fine selection of the largest and most attractive named varieties, including the newest novelties; this is not field grown mixture.

Ounce 25¢; 4 Ounces 70¢; Lb. \$2.00, prepaid..... SPEA. 1XR. 15¢

EARLY or WINTER FLOWERING: This group is equally satisfactory for garden or greenhouse growing. The varieties listed are the very best for greenhouse culture and are listed under their original names. There are none better.

—**American Beauty.** Rich crimson-rose, shaded deep crimson..... **SPEA-2A.** 20¢

—**Annie Laurie.** Pure rose, white base; vigorous grower..... **SPEA-2AL.** 20¢

—**Ball Blue Supreme.** Best clear deep blue..... **SPEA-2BS.** 20¢

—**Ball Rose Supreme.** Large wavy silvery rose-pink flowers..... **SPEA-2BR.** 20¢

—**Blue Boy.** Beautiful dark blue..... **SPEA-2BB.** 20¢

—**Burpee Orange.** Clear orange, shaded..... **SPEA-2BO.** 20¢

—**Cascade.** Best white; white seeded..... **SPEA-2C.** 20¢

—**Elk's Purple.** Large reddish purple; long stems..... **SPEA-2EP.** 20¢

—**Giant Pink.** Pink blended with soft rose, more intense on edges.... **SPEA-2GP.** 20¢

—**Grenadier Improved.** Dazzling crimson-scarlet; vigorous..... **SPEA-2G.** 20¢

...**SWEET PEAS:** Continued on Page 73.

PIONEER SEED COMPANY

DIMONDALE MICHIGAN

Flowers and Government

We do not intend to use much space in our columns on the government; already too much paper has been wasted on this subject, without any apparent results.

According to the 1940 census the total valuation of the whole country, counting the jewelry on your fingers and the clothes on your back, the furniture in your house, etc., amounted to but 150 billion dollars. The rate of increase of our national wealth has been at the average yearly rate of ONE billion dollars. It never has been more and in the 1940 report it was stated that much of the increase during the 10 year period was due to appreciated real estate values, a value that is very much in the mind rather than real worth.

This annual increase in national wealth was made under our old system and standard of living but the present government, which is actually the same one that has been in power the last twenty years, has saddled a national DEBT of 150 billion, that they admit. This is equal to the country's worth; but this also represents a yearly interest of over 5 billion or FIVE times more than we have ever before been able to add to the national wealth. If it is ever paid, the American citizen will live another standard of living than he has been used to in the past.

The present crying about inflation is only Mr. Average Citizen wanting his old dish when it is already gone. If the Saving Bonds are to be paid, the standard of living will be greatly reduced in the future and the sooner the government, the people and the trade unions admit the fact, the sooner the times will be understood.

There has been nothing done in the past 20 years that has caused the present inflation more than the present unionization. When a group of men representing only a few citizens can take over another citizens property by force and even do it to the point of willful destruction of life and property and with seldom a conviction, there will be no end to the unsettled condition in the country.

The theory that there is but 25% or less of the cost of an automobile or a farm machine, to be labor and therefore a 10% increase in wages should not even be reflected in the selling price, is wrong, for every thing in the cost of an article is labor, and a 10% increase in labor is a 10% increase in costs. When the farmer is unionized and he tells the rest of the nation what they shall eat and at what cost (and why not also make Mr. Petriolla announce the farmers name and his "cooperation" every time he opens his mouth for a piece of rich steak) this will end the unions.

Just think that the present government has GIVEN away 125 billion dollars, nearly what the nation is worth! We listen to a half baked broadcast from "free Erope" paid for by your and my money and then listen to the "news" that the great American people have given the Austrian 500 million to drill for oil and 300 million or some such figure so the French can make face powder better and cheaper than we can sell them!

THE GLOXINIAN

We are in receipt of the first issue of a bulletin by the newly formed American Gloxinia Society. It consists of 12 pages and contains some interesting articles on this popular flower.

Elvin McDonald, Gray, Okla., is the editor and any one interested can write him, the annual dues are \$1.50 per year.

SUBSCRIPTION price now \$2.00 per year.



BEAUTIFUL SURROUNDINGS NOT ONLY ADD VALUE TO YOUR PROPERTY
BUT TO YOUR NEIGHBORHOOD AND THE HAPPINESS OF ALL

The Shakespeare Garden

Continued from Page 65

gardens, now often growing wild.

Picturesque names are the rule. Lady Smocks of Love's Labour Lost were perhaps the cardamine pratensis, the flowers of which look like tiny smocks hung on a line and so called Our Lady's Smocks. Cuckoo buds in the same play may have been buttercups or cowslips. Today the name is given to the meadow cress.

In Hamlet are mentioned the crants or garlands carried before a maiden's coffin. In the same play are nettles, daisies and long purples or dead men's fingers. The latter is the early purple orchis which blossoms in April and May. War's Garland of Coriolanus was the laurel. Bachelor buttons in The Merry Wives, by means of which success in love was divined, were the ancestors of those we have today. The Columbine while not so improved as now was yet a lovely flower. Honey stalks, Titus Adronicus, were the clover flowers which contain a sweet juice.

The mandrake is introduced in King Henry IV, King Henry VI, Antony and Cleopatra, Romeo and Juliet and Othello. This was Aropa mandragora, the root of which was supposed to resemble the human form and resented being torn from the earth, causing madness and death as a result. Our ginseng has a similar shaped root. Much superstition was attached to plants. Eringoes of The Merry Wives of Windsor, the sea holly, was supposed to possess aphrodisiac qualities. Fern seed (King Henry IV) made the person carrying them walk invisible!

SOWING SMALL SEEDS IN MISSOURI

Continued from Page 65

is a time saver when water is needed use either a fine spray, very carefully or use a spoon and let water run down the sides of the jar and into the soil. Many seedlings that grow so slow can live on for over a year in their jar homes before transplanting is needed.

The holy distle (Cardus Benedictus) was supposed to cure all diseases including the plague. Knot-grass (polygonum aviculare) was said to check the growth of children.

Samphire (Kink Lear) was the sea fennel, Crithorium maritimum, which used to be plentiful on Shakespeare's cliff at Dover. The fleshy leaves were used as a pickle or a vegetable. There is a certain samphire, a glasswort, also used as a pickle. It grows on marsh land.

Several vines were named. The woodbine (A Midsummer Night's Dream) may have been the honeysuckle or the convolvulus or even a bindweed. The fumitory (Henry V) is a rapidly growing vine with rose blossoms and lacy leaves the flowers resembling half of the bleeding heart. The eglantine of A Midsummer Night's Dream was of course the sweetbriar. The musk rose mentioned in the same play is no doubt the true musk rose which has single white blossoms in large tresses with a decided musk odour. This is said to be the ancestor of Cloth of Gold and possibly of Marechal Niel, a chance seedling.

In Elizabethan times knots were popular. These were flower gardens laid out in intricate patterns. The idea might not appeal today. But Shakespeare gardens would not be complete without a Morris plot near by. This was a plot where the sods were cut out as to form a chess board. Near, too, should be little ringlets or orbs, as they were called, of grass. These were tiny meadows of greensward where the fairies were supposed to dance in the moonlight.

Faster growing plants of course will have to be cared for sooner. I have any number of Begonias seedlings that I have grown, using this method. One can find so much that is new so any of you who care to try will enjoy your plants more, seeing them grow from seeds.

By Mrs. Mona Ayres, Missouri

PALM-TROPICAL SEEDS FOR THE GREENHOUSE

PACKETS: 75¢ each per 1000 Seeds
(250 seed at the 1,000 rate)

BRAHEA roezli (glauca).....	\$ 9.00
CHAMAEROPS excelsa.....per lb.	.90
humilis.....	1.00
COCOS australis (C. campestris).....	4.00
flexuosa.....	4.25
Romanzoffiana.....	6.00
CORYPHA australis.....	7.00
JUBAEA spectabilis.....	8.00
KENTIA Belmoreana.....	
Forsteriana.....	20.00
LATAINIA borbonica (Livi. sinensis).....	6.00
PHOENIX canariensis.....	3.25
dactylifera.....	9.00
leonensis (P. reclinata).....	3.75
Roebelinii.....	10.00
sylvestris.....	3.50
PRITCHARDIA filifera.....	2.75
SABAL Adansoni.....	4.00
Palmetto (S. umbraculifera).....	4.00
WASHINGTONIA robusta.....	4.00

SEEDS OF TROPICAL and SUB-TROPICAL PLANTS.

Packets at 75¢ each. per Lb.

ACACIA cyanophylla.....	\$ 8.00
dealbata.....	6.50
Farnesiana.....	2.60
Horrida.....	5.00
melanoxylon.....	3.25
mollissima.....	3.25
pycnantha.....	2.75
retinoides (A...floribunda).....	2.25
ASPARAGUS plumosus nanus.....	11.00
1,000 seeds for \$1.60.	
retinoides (S. floribunda).....	5.00
sprangeri (1,000 sd. \$1.60).....	12.00
CASUARINA strita (quadrivalvis).....	9.00
torulosa (tenuissima).....	9.00
CERATONIA siliqua.....	.50
CITRUS aurantium.....	1.50
DRACOENA Draco.....1,000 seeds	3.00
indivisa (Cordylina).....	9.50
ERYTHRINA Crista-galli.....1,000 seeds	5.00
EUCALYPTUS botryoides.....	12.00
globulus.....	10.00
Gomphacephala.....	12.00
resinifera.....	12.00
rostrata.....	5.50
viminalis.....	12.50
hybrid Rostrata x Botryoides.....	7.00

GREVILLEA robusta, only in packets ..

HOVENIA dulcis only in packets.....

ILEX paraguayensis only in packets

JARARANDA mimosaeifolia only in pkts

MIMOSA bracinga only in packets

MOQUINIA polymorpha only in pkts

NERIUM Oleander..... 5.00

OPUNTIA ficus-indica..... 5.00

PARKINSONIA aculeata..... 6.00

PASSIFLORA coerulea only by pkt....

PISTACIA vera..... 3.00

POINCIANA Gillesii..... 3.80

PSYDIUM guayava only in packets....

PUERARIA Thunbergii (Kudzu Vine) pkts.

SCHINUS molle..... 1.00

PIONEER SEED COMPANY

Dimondale - Michigan.

TALINUM - THALICTRUM - TEA

SWEET PEAS: Continued from Page 71.

- Kate Smith. Scarlet, suffused rose; long stems, large flowers..... SPEA-2K. 20¢
- Mars. Rich deep crimson..... SPEA-2M. 20¢
- Mrs. H. S. Reddick. Brilliant flesh pink suffused salmon; immense fls..... SPEA-2R. 20¢
- Orange King. Glowing intense orange with crimson shadings..... SPEA-2OK. 20¢
- Oriental. Deep cream; black seeded; large flowers..... SPEA-2N. 20¢
- Princess Blue. Rich belledonna blue; vigorous..... SPEA-2PB. 20¢
- Shirley Temple. Delightful soft rose-pink, fluted, long stems..... SPEA-2ST. 20¢
- Supreme Orange. (Zvolanek's) Cerise wings, orange standards..... SPEA-2S. 20¢
- Twilight. A very pretty lavender variety..... SPEA-2T. 20¢
- Zvolanek's Salmon. Salmon-cerise, large flowers; robust..... SPEA-2Z. 20¢
- Florist Blend. A hand made blend for the grower needing but a small amount of seed; in best proportions PRICE: Oz. 40¢; ¼ lb. \$1.30; 1 lb. \$3.00. SPEA-2FX. 20¢
- Extra Choice Mixed. Well balanced mixture of newest and brightest colors. Especially for garden growing Oz. 35¢; ¼ lb. \$1.10; 1 lb. \$2.75 SPEA-2X. 20¢

SPRING FLOWERING CUTHBERTSON: A new intermediate season type, whose main recommendation is heat resistance. The colors are plainer and not as good as in the Spencers. We recommend them for the South.

- Finest Mixture.....Oz. 25¢; 4 Oz. 80¢; Lb. \$2.25..... SPEA-3X. 15¢

SYNTHYRIS. (SINTH-uh-riss) Scrophulariaceae.

Native N. American perennials with basal leaves and wheel-shaped 4-lobed flowers in spikes or racemes. Grown in the border.

- Hendersonii. Sky-blue fls ¼" long; RG; 3 inches; HP..... SYNT-8. 25¢

SYMPLOCOS. (sim-PLOH-kos) SWEET-LEAF. Symplocaceae.

Trees and shrubs of ornamental value. Seeds are slow to germinate.

- paniculata. To 30 ft; deciduous; white frag. fls; fr. blue; HTR..... SYMP-1. 25¢

TALINUM. (tah-LY-num) FLAME FLOWER. Portulacaceae.

Many small fleshy perennials with erect clusters of pink, red or yellow flowers. Some hardy, others grown in tubs indoors during the winter.

- paniculatum. Red to yellow fls in panicles; 2 ft; for the S..... TALI-5. 20¢

TARCHONANTHUS. (tar-sho-NAU-thus)

- camphoratus v. litakensis. Wild sage. Sh; masses of pale yellow fls seeds in cottony ball; very attractive; S. Rhodesia; for South..... TARC-1. 25¢

TAXODIUM. (tax-OH-dee-um) BALD CYPRESS. Taxodiaceae.

Trees with needle-like lvs; fls in catkins. Ask for bulk prices if interested.

- distichum. Deciduous, hardy in the North..... TAXO-2. 25¢

TEPHROSIA. (tef-ROH-se-ah) (Crocca) Leguminosae.

Plants or shrubs, red, purple or white fls in racemes, followed by flat pods.

- candida. Sh. to 10 ft; white fls 1" long; pods 4 in; India..... TEPH-1. 25¢

THALICTRUM. (thal-LIK-trum) MEADOW RUE. Ranunculaceae.

Perennial plants with flowers in panicles or racemes, with out petals but with numerous drooping stamens. Some are attractive in masses in the border, others in the wild garden. They are easy to grow, thriving in any well drained loamy soil.

- adiantifolium. (T. minus) Greenish yellow; fine cut fol; 18"; HP..... THAL-1. 15¢
- aquilifolium. Dainty, pretty, fluffy white or cream fls; 3 ft; HP..... THAL-5. 25¢
- dipterocarpum. Rose-mauve with drooping golden stamens; 4 ft; HP..... THAL-14. 15¢
- Thalictrum Mixed. All kinds listed..... THAL-X. 15¢

THERMOPSIS. (ther-MOP-sis) Leguminosae.

Easily grown perennials in open sunny positions. The flowers are lupin-like, in racemes. Sow seeds in fall or spring over heat. Useful in the border.

- caroliniana. Yellow fls erect terminal racemes; N. C.- Ga; 5 ft; HHP.... THER-1. 20¢

TETRAPANAX. (tet-RA-pan-ax) Araliaceae.

Shrubs or small trees native of warm regions; used for the making of rice paper.

- papyrifera. Grown in the South; fls in umbels..... TETR-1. 25¢

THEA. (THEE-ah) Theaceae.

Evergreen trees and shrubs, showy white or pink nodding flowers. Hardy only in S.

- sinensis. TEA. Sh to 20 ft; lvs are tea of commerce; hardy in S..... THEA-4. 25¢

THUJA. (THEW-juh) ARBOR-VITAE, CEDAR. Pinaceae.

The following can be grown from seeds. Write for prices in bulk if you use quantity.

- occidentalis. American Arborvitae THUJ-3. 25¢
- aurea. Bushy, yellow foliage..... THUJ-3A. 25¢
- pyramidalis. Pyramidal growth THUJ-3P. 25¢
- Warrana. (T. robustus) Lower and more dense growth than type..... THUJ-W. 25¢
- orientalis. Oriental A. Leaves bright green; China, Korea..... THUJ-4. 25¢
- New England grown seed..... THUJ-4NE. 25¢
- aurea. Golden yellow foliage in spring..... THUJ-4A. 25¢
- compacta. (Sieboldii) Low and globose..... THUJ-4C. 25¢
- pyramidalis. (tatarica) Branchlets yellow tipped..... THUJ-4T. 25¢
- plicata. Giant Arbor Vitae. Tree to 200 ft..... THUJ-5. 25¢
- Standishii. Japanese Arbor Vitae. To 50 ft; Japan..... THUJ-6. 25¢

THUJOPSIS. (thew-JOPP-siss) Pinaceae.

Evergreen trees allied to Thuja, native of Japan.

- dolabrata. Hiba Arbor Vitae. Hardy in Ohio..... THUO-1. 25¢

THUNBERGIA. (thun-BURJ-ee-ah) CLOCK VINE. Acanthaceae.

Tender climbers from tropical regions and grown in the greenhouse to be set out doors during the summer. They can be planted outdoors in the South; start seeds early in February or March.

- fragrans. Slender GH climber with white fragrant fls 2" across..... THUN-5. 25¢

THYMOPHYLLA. (tye-moh-FILL-uh) DAHLBERG DAISY. Compositae.

Low annuals and perennials from the South and Central America. Grow as annual N.

- tenuiloba. Excellent bedder; 1 ft; blooms in 4 mo; full sun..... THPH-1. 20¢

PIONEER SEED COMPANY — DIMONDALE MICHIGAN

African Violets - Review

Our policy is not to review a book if we have to criticise it much. Those that we think of value, we are pleased to give the space necessary for a review of its contents that our readers may have at least our opinion. Also, to list the book so as to be readily available to any one having use for it. No book will be listed in the seed lists unless it is strictly practical, covers the subject thoroughly, is reasonably priced and a book that we can recommend to be satisfactory or your money back; African Violets by Carolyn K. Rector, meets these requirements.

It is 93 pages, 6 x 9, in card board covers, has 14 chapters covering the African Violet from leaf cuttings, potting, divisions, seeds, soils, watering, fertilizers, growing seeds, hybridizing, varieties, diseases and ending with suggestions for getting your plants in shape for the show room.

It is free from a lot of unnecessary words, a common fault with so many books.

We would have liked it better if the chapter on hybridization was a little more complete and probably a little more information on the outstanding varieties, with something on their breeding if there was any such information. Where varieties are scientifically crossed, as is the case in many flowers today, this information is of value for future work. Some information should have been accumulated by this time as to the dominant and recessive characters in the genus, and any one wishing to grow new varieties should have this information at the start.

I might add to Mrs. Rector's remarks on telling when to water that you try tapping the pot with a piece of metal such as a knife handle or a half dollar; on 3 or 4 inch pots you will readily tell by the hollow sound HOW dry the particular pot is and about HOW much water to give to it. Overwatering African Violets is one of the common faults.

The book sells for \$1.35 and is a big value to any African Violet enthusiast.

MY FLOWER GARDEN

Continued from Page 69.

is alba-maculata or the spotted Calla. The leaves are spotted with white and it makes the plant much more attractive.

There several pretty Salvias that are hardy here in Michigan and Salvia argentea or Silver Salvia, has recently finished flowering. It is a showy flower when in bloom but what I wish to say here is about cutting back the old foliage. This should be done immediately as the flowers start to go to seed and if done then the foliage would be a nice silvery color now. We keep a layer of gravel under the leaves and have a drainage ditch from the plants to avoid rotting the foliage.

Another pretty plant in bloom now is Monardia fistulata or Wild Bergamot which also grows along the roads here in Michigan but the flowers usually are a pale pink; those we are growing are a dark rose and we have one selection, one plant, with a large dark center or eye. It would be fine if some of our readers would adopt this flower and see what could be done in improving its color, there are great possibilities here!

ONE PACKET EACH OF THE NINE PACIFIC GIANT DELPHINIUMS

Total Value \$3.30; SPECIAL THIS MONTH \$2.00 for all 11 Packets

PIONEER SEED COMPANY
DIMONDALE, MICHIGAN

THYMUS - TITHONIA - TULIP

THYMUS. (TYE-mus) THYME. Labiatae.

Aromatic plants with a profusion of small flowers. They all like sunny dry locations and are easily grown from seed. Liable to winter kill in heavy soils.

- Serpyllum*. Prostrate sub-shrub; fls purplish; HP..... THYM-23. 25¢
—*lanuginosus*. Grayish foliage..... THYM-23L. 25¢

TILIA. (TILL-ee-uh) BASSWOOD, LINDEN, LIME. Tiliaceae.

Sow seeds in fall or stratify. They thrive in any soil so long as it does not dry out too much in the summer. Write for bulk prices if interested.

- americana*. American L. N. B. to Mo; 100 ft..... TILI-1. 25¢
—*cordata*. Small leaved Linden; to 100 ft; Europe..... TILI-2. 25¢
—*europaea*. Hybrid; excellent street tree..... TITI-6. 25¢
—*platyphyllos*. Large Leaf L. To 100 ft..... TILI-20. 25¢
—*tomentosa*. White or Silver Linden. To 100 ft; E. Eu. Asia Minor..... TILI-21. 25¢

TINNEA. (tin-NEE-ah) Labiatae.

Herbaceous or somewhat woody plants with whorls of 2-lipped tubular purple flowers. They are tender in the North.

- abysinnica*. Purple-brown fls; interesting bladder-like pods; TSh..... TINN-1. 25¢

TITHONIA. (ti-THOH-ne-ah) MEXICAN SUNFLOWER. Compositae.

Robust growing plants from Mexico. They are tender annuals in the North; start the seed early and transplant outdoors when frost danger is passed.

T. ROTUNDIFOLIA: (T. speciosa)

- TORCH*. The new G. M. Winner; orange-red; 3 ft; (see pg. 28)..... TITH-2T. 25¢
—*Fireball*. Brilliant scarlet; 6 ft..... TITH-2F. 15¢
—*Orange Vermilion*. Glistening scarlet like large single Dahlias..... TITH-2V. 15¢
—*Mixed*. Many shades of color, all beautiful..... TITH-X. 15¢

TORENIA. (toh-REEN-ee-uh) Scrophulariaceae.

Florida Pansies. Tropical perennials grown in the greenhouse or as annuals in the North. In Florida they are used as substitutes for Pansies. The flowers are 2-lipped and much like Gloxinias; shady places, a rich soil best.

- Fournieri*. Rich blue with golden centers; pots, beds; 9"; *TP..... TORE-4. 20¢
—*alba compacta*. Dense habit; white corolla, yellow blotch; 9"; *TP..... TORE-4A. 25¢

TOWNSENDIA. (toun-SEN-de-ah) Compositae.

Biennial and perennials closely resembling Aster, s in white, rose to violet, with rays. Not commonly grown but fine for the rockery.

- excarpa*. Stemless, 1' tall; mauve with yellow disk; RG; pretty; HP.... TOWN-1. 25¢

TRACHELOSPERMUM. (trak-el-oh-SPERM-um) Apocynaceae.

Twining evergreen vines. Suitable for the South.

- fragrans*. White fls; pots 9" long; tall climber; TP..... TRAC-3. 25¢

TRADESCANTIA. (trad-es-KANT-ee-ah) SPIDERWORT. Commelinaceae.

Perennials with blue, rose, purple and white flowers in umbels and they are grown indoors, or in baskets or in the border; easily grown.

- Beauty Blend*. Hardy species; 3 ft; HP..... TRAD-X. 15¢

TRIFOLIUM. (trye-FOH-lee-um) CLOVER. Leguminosae.

We list here only those of ornamental value.

- repens*. SHAMROCK. This and *Oxalis acetosella* said to be S; HP..... TRIF-20. 20¢
—*v. atropurpureum*. Deep bronze red with green margins lvs; HP.... TRIF-20P. 20¢

TRIPTERIS. (TRIP-ter-is) Compositae.

South African plants or shrubs, not hardy in the North. Flowers are daisy-like. both ray and disk flowers. Plant early in the spring.

- hyoseroides*. Golden yellow fls, black disk; pretty; 2 ft; HA..... TRIP-1. 20¢

TROLLIUS. (TROL-ee-us) GLOBE FLOWER. Ranunculaceae.

They make nice spring flowering plants in the border if planted in a low moist place with some shade. Colors are yellow or orange and in form Buttercup-like; easy.

- albiflorus*. Creamy white fls; 15"; HP..... TROL-2. 25¢
—*europaeus*. Globe Fl. (St. Wolfgang); lemon-yellow; 2" ac; HP..... TROL-8W. 25¢
—*Orange Princess*. Pretty orange variety; 1 ft; HP..... TROL-8P. 25¢
—*Ledebourii*. Yellow fls; 2 ft; sunny place in bog garden; HP..... TROL-19. 25¢
—*patulus*. Soft yellow fls; 2 ft; for the brook side; HP..... TROL-19T. 25¢
—*pumilus*. Alpine King-cup. Golden yellow cups; 10"; pretty; HP..... TROL-20. 25¢
—*Trollius Blend*. All above species mixed..... TROL-X. 20¢

TULIPA. (TEW-li-uh) TULIP. Liliaceae.

Growing Tulips from seed is interesting, especially so with the species. Usually these come true from seed; they are easily grown but the seeds do not germinate quickly. The species, or Botanical Tulips, are very pretty and should be grown more.

- biflora*. RG sp, star-like fls white or yellow; 5"; HBB..... TULP-4. 20¢
—*Clusiana v chrysantha*. Golden yellow vase-shaped; 6"; HBB..... TULP-9C. 20¢
—*stellata*. White or yellow; pretty; 8"; HBB..... TULP-9S. 25¢
—*Kaufmanniana*. Beautiful; water lily-like; white, yellow, pink 8"..... TULP-25. 25¢
—*Strangeri*. Bright red; funnel-shaped in bud; last to flower; 12"..... TULP-47. 25¢
—*Tulip Blend*. All above mixed..... TULP-X. 20¢

TUNICA. (TOO-nik-uh) TUNIC FLOWER. Caryophyllaceae.

Herbaceous annuals and perennials similar to *Dianthus* in growth but smaller. For edging or the rockery.

- saxifraga*. Tufted, spreading; pink fls; HP..... TUNI-2. 20¢

UNIOLA. (eu-NA-oh-lah) Gramineae.

North American perennial grasses with prominent 2-edged spikelets borne in panicles.

- laetifolia*. Pretty n thie border; 5 ft; HP..... UNIO-1. 15¢

NOTE: It is our intention that these seed lists be correct, both as to classification and to descriptions.... We use Hortus II as our authority.... If any of our readers note a mistake, we will certainly deem it a favor if it is pointed out to us.

PIONEER SEED COMPANY — DIMONDALE MICHIGAN



BALM

DICENTRA OREGONA

Listed as *Dicentra glauca* for a number of years *Dicentra oregana* has now disappeared from nursery catalogs. This certainly is not due to its unwillingness to thrive under cultivation but rather to the fact no efforts were made to propagate the species. Most of the stock offered in the trade was collected material.

The plant is as rare as it is beautiful and few accessible stations where it grew wild but never abundantly, have been completely ransacked.

Gabrielson in "Western American Alpines" calls it the "King of the Family", a title well deserved.

It is found in gravelly clay as well as amongst boulders where its long thick stolons travel and feed on the silty duff packed between the interstices.

The foliage resembles that of a dwarf *Dicentra formosa* in outline but is gleaming silver instead of green, especially where plants are exposed to the sun. It seldom reaches 12 inches to the top of the flower sprays; the blossoms are pale cream tipped with pink, sometimes carmine and the plant remains in bloom from spring to mid-summer and often later.

by Marcel LePeniec

SEEDS WANTED

We have inquiries for seeds that we do not have a supply at the moment and as a service to our readers, we list these requests here and if anyone having seed or able to harvest it from the current crop, please write us.

Mrs. J. V. O'Brien, Rt. 1, Topanga, Cal., wants a plant of *Dianthus Rose Marie*.

In an issue or two back, the common name for *Caesalpinia Gilliesii* or *Poinciana Gilliesii*, as it was called botanically, was asked for. Mrs. C. E. Prior of Riverside, Calif. writes that it is known as Bird of Paradise in her section.

MOVED - NO ADDRESS

Magazines addressed to Eunice M. Patterson Rt.1, Bx 1027, Kent, Wash., has been returned. She being a subscriber, if any one knows her address, please advise.

Mildred Yost, 3041 Holmes St., Kansas City 5 Mo., a subscriber has no forwarding address and her magazine has been returned.

Subscription Price for the present \$2.00

URSINIA - VACCINIUM - VERBENA

URSINIA. (ur-SIN-ee-uh) Compositae.

South American annuals and perennials, the flowers daisy-like, solitary or loosely clustered. Sow seeds early indoors or direct to soil. Treat as an annual.

- anethoides*. Jewels-of-the-Veldt. Orange fls purple centers; 18" HA..... URSN-1. 20¢
- aurora*. Brilliant orange; crimson zone; HA..... U SN-1A. 20¢
- californica*. Yellow or orange; S. Rhodesia..... URSN-5. 25¢
- pulchra compacta*. Yellow or orange, 2" ac; rays br-purple; 2 ft; HA..... URSN-7. 20¢
- Ursinia Blend*. Above mixed and many pretty hybrids..... URSN-X. 15¢

VACCINIUM. (vak-SIN-ee-um) BLUEBERRY, CRANBERRY. Ericaceae.

Hardy shrubs and trees grown for ornament or for their edible fruits and all thriving in rather acid soils of a peaty sand nature. Sow the seeds in the fall or stratify till spring. If interested in quantity of seed write for prices.

- augustifolium*. (pennsylvanicum) Dec; bluish black fr; 1 ft; HSh..... VAC-1. 25¢
- canadense*. Deciduous; fr; blue; 1-2 ft; HSh..... VAC-6. 25¢
- corymbosum*. Highbush or Swamp B; Wortleberry; 15 ft; HSh..... VAC-7. 25¢
- Seed from large fruited named varieties..... VAC-7N. 25¢
- Mixed *Vacciniums*. All above mixed..... VAC-X. 20¢

VALERIANA. (val-er-ee-AY-nuh) VALERIAN. Valerianaceae.

Perennial plants and shrubs with small white or rose flowers in cymes or spikes. Very easy to grow in the border; they are very fragrant.

- officinalis*. Garden Heliotrope. Popular; pink, red, white fls; 4 ft; HP VAL-12X. 15¢
- White..... VAL-12W. 15¢
- Red..... VAL-12R. 15¢
- rubra*: see *Centranthus rubra*.

VERBASCUM. (ver-BASK-um) MULLEIN. Scrophulariaceae.

Mostly tall hardy biennials; making good specimens in the back ground of the border; thrive in most any soil and are easy to grow.

- paniculatum alba*..... VEBS-18. 25¢
- phoeniceum hybrids*. Purple and red fls in racemes; 4 ft; HB..... VEBS-19. 20¢

VERBENA. (ver-BEE-nuh) Verbenaceae.

Germ. 10 days.

Mostly perennials and highly prized for their profuse blooming. In the North they are grown as hardy annuals but in the far South they can be sown as perennials. In the North start seeds indoors for real early flowers; set 1 ft. apart in a sunny place.

V. TEUCRIODES: To which probably belong most of the popular garden varieties. The varieties following are the very best and all mammoth in size.

- Daneborg*. Scarlet with showy white eye..... VERB-1D. 15¢
- Eina*. Large trusses of intense geranium-red fls..... VERB-1E. 15¢
- Lavender Glory*. Pretty shades of lavender with cream eye..... VERB-1L. 15¢
- Luminosa*. Pink shaded to salmon..... VERB-1M. 15¢
- Gigantea Mixed*. Above and many other colors..... VERB-1GX. 15¢
- compacta, Mixed*. Low growing, 6"; for edging or bedding..... VERB-1CX. 20¢

VERBENA SPECIES:

- bipinnatifida*. Lilac-purple fls in loose clusters; showy; HP..... VERB-2. 20¢
- canadensis*. (aubletia) Violet-red; June to frost; 10"; *HP..... VERB-5. 20¢

VERBESINA. (ver-bes-SYE-nuh) Compositae.

Am. plants and shrubs, yellow, orange or white flowers, solitary or in panicle heads.

- enceliodes*. Golden yellow rays, 2" ac; TA..... VEBE-3. 20¢

VERONICA. (ver-RON-ik-uh) SPEEDWELL. Scrophulariaceae.

Annual and perennial plants popular in the rockery or border, hardy, free flowering and thriving in a sunny or light shady place; they are easy from seed.

- spicata mixed*. Blues, reds, pink, white fls; 18"; HP..... VERO-70X. 15¢
- nana alba*. Low growing strain; white flowers..... VERO-70NA. 20¢
- Blue Shades..... VERO-70B. 15¢
- Blue Sky. Pretty sky blue variety..... VERO-70S. 15¢

VERNONIA. (ver-NOH-nee-uh) IRONWEED. Compositae.

Herbaceous perennials in the North and tropical trees and shrubs in the South. The flowers are showy and in purple, pink or white heads of disk flowers, in terminal clusters. Bloom late in the summer and autumn; easily grown for border or wild garden.

- glabra*. Deep blue; 1-2 ft; good for cutting; S. Rhodesia; TP..... VERN-6. 25¢
- karongensis*. Bright purple; 1-2 ft; dandy; S. Af; TP..... VERN-9. 25¢
- melleri*. Sky blue, a large plant; S. Rhodesia; TP..... VERN-12. 25¢
- Vernonia Blend*. All above mixed..... VERN-X. 20¢

VIBURNUM. (vy-BURN-um) SNOWBALL. Caprifoliaceae.

These are one of the most popular ornamental shrubs. They should also be grown more as bird refuges for their fruits make excellent winter feed for all kinds of wild life. The seed should be stratified in the fall and planted in the spring when they germinate readily.

- acerifolium*. Dockmackie. White, cymes; May-June; 6 ft; HSh..... VIB-1. 25¢
- alnifolium*. Hobble Bush, Am. Wayfaring T. White, May-June; 10'; HSh..... VIB-2. 25¢
- americanum*; see *V. trilobum*.
- Carlesii*. White, fragrant; dense cymes; April-May; 5 ft; HSh..... VIB-12. 25¢
- cassinoides*. Whitte Rod. White, cymes; June-July; 12 ft; HSh..... VIB-13. 25¢
- dentatum*. Arrow Wood. White, cymes; May-June; 15 ft; HSh..... VIB-20. 25¢
- dilatatum*. White, cymes; May-June; fr scarlet; 10 ft; HSh..... VIB-21. 25¢
- Lantana*. Wayfaring T. White, cymes, 4" ac; May-June; 15 ft; HSh..... VIB-36. 25¢
- Lentago*. Sheep Berry. White, cymes; May-June; hardy; to 30 ft; HSh..... VIB-37. 25¢
- odoratissimum*. White, fragrant; panicles; May-June; 10 ft; HSh..... VIB-46. 25¢
- opulus*. Eu. Cranberry Bush. White; May-June; 12 ft; HSh..... VIB-47. 25¢
- prunifolium*. Black Haw. White, cymes, 4" ac; April-May; 15 ft; HSh..... VIB-52. 25¢
- Sieboldii*. Creamy white, panicles; May-June; 10 ft; Japan; HSh..... VIB-65. 25¢
- Tinus*. Laurestinus. White or pinkish, grown in GH; 10 ft; HSh..... VIB-68. 25¢
- trilobus*. Cranberry Bush. White, cymes; May-June; 12 ft; HSh..... VIB-69. 25¢
- Wrightii*. White, cymes; May-June; 10 ft; Japan; HSh..... VIB-77. 25¢
- Viburnum Mixture*. All above species mixed..... VIB-X. 25¢

VIDORELLA. (vid-o-RELL-ah)

Seeds from S. Rhodesia; better classification later.

- residifolia*. Small bright yellow globular fl heads; for S..... VIDO-1. 25¢

PIONEER SEED COMPANY — DIMONDALE MICHIGAN



Limonium sinuatum



Zinnia linearis

HYDROPHYLLUM CAPITATUM

This is a plant of rare charm, worthy of a place in any one's garden. Only 6" high and of very easy temperament it is well adapted to conditions prevailing in most parts of the country, demanding only a spot of rich woodland soil normally moist in the fall, winter and spring but quite dry in the summer.

Open shade, full sun suits it equally well. The lavender blue flowers appearing on densely crowded racemes in early spring are almost hidden by arching, beautiful gray velvety leaves, each as pure of lines as the most perfect Acanthus on a Corinthian capital.

OF INTEREST TO COLLECTORS

We have hundreds and hundreds of collectors all over the world who collect native flower seeds for us. Some of them are professional collectors but a great many only supply seeds of one or two species, that are growing near by their homes. If any such person has a flowering plant that we can use the seed of, we allow a subscription, furnish bags and do the cleaning of the seed. All that is necessary is that you gather the seed at the right time, place it on a tray for drying until safe to mail.

Please do not mail us any seed under this offer until you have first written, as we already have sources for many seeds. This is of special interest to foreign readers who have trouble remitting their currency in payment for subscriptions.

CUT OFF SEED PODS

When one is not actually raising seed, it is always best to cut the flowers off as soon as their display is finished. Some of the larger plants that form attractive pods, are exceptions.

So many plants actually kill themselves in blooming. This should not be delayed after the flowers have passed their showy period, especially in such species as the low Alyssums, the cushion Dianthus, most of the Penstemons, etc.

Cutting the old flowering stems back will also tend to aid the plant to send up another set of flowers later on in the season. This is the usual practice with Delphiniums.

A NEW SEED LISTING

In this issue the listing of available seeds has been completed and it will now start over again. There was a great many seeds missed in the first listing but these will be included in the present one. Readers want to keep in mind that not all the seed listed can be planted now, many annuals can be planted in the South now but it is too late in the North.

Subscription Price for the present \$2.00.....

THE NEW PINK NARCISSUS

This introduces the NEW "PINK" DAFFODILS that will be offered during the next year or two. They are lovelier, more delicately tinted and have much larger Trumpets than Mrs. R.O..Backhouse, which is their parent. Each one of them is a jewel in any Daffodil collection. All are excellent growers, free flowering and multiply rapidly.

Bulbs offered are all TOP SIZE, DOUBLE NOSE. Each 5 100

ANTIBES. .30 \$1.25 \$20.00

Strong white perianth. The trumpet is pale apricot, shaded salmon and orange when opening, later shading to a soft pink.

BIARRITZ. .30 1.25 20.00

Pure white perianth. When opening the trumpet is a pale Buttercup-yellow with a broadly fringed and apricot shaded edge, when fully developed the trumpet becomes a clear apricot-pink. Strong grower.

CANNES. .30 1.25 20.00

Good, stiff, white perianth, somewhat inclined to turn backward. Trumpet or cup medium sized, slightly flaring, soft canary yellow with most interesting pink ruffles on edge of cup.

CHAMPAGNE. .60 2.75 40.00

Pure white perianth of good substance. The trumpet is large and pale cream-pink with broad overlapping ruffled edge. When in full bloom the color turns to salmon-pink. Strong grower.

LADY BIRD. .60 2.75 40.00

White perianth of perfect form. The large trumpet is distinctly pink and flaring, evenly ruffled, pale apricot outside, deep orange-apricot inside at opening deepening towards the throat. Strong stem. Most outstanding variety; resembling Daisy Schaffer in form and size.

MENTONE. .70 3.75 50.00

White perianth, trumpet apricot, shaded pink outside, which is fringed and of a lovely tangerine orange and rose color; inside somewhat stronger in color than outside. When fully developed the flower turns to a nearly clear pink. Cup length is about 2½ inches and it is 2 inches wide. Outstanding.

PINK BEAUTY. .30 1.25 20.00

White perianth and of good form, opening apricot-yellow with somewhat darker edge, later becoming salmon-pink.

PINK FANCY. .20 .60 15.00

White perianth, well formed, with a pale apricot trumpet, broadly fringed soft pink. Free flowering and excellent for naturalizing.

PINK FAVORITE. .30 1.25 25.00

Pure white perianth; the trumpet is at opening pale yellow, soon turning to a beautiful apricot-pink somewhat darker inside.

PINK GEM. .40 1.75 30.00

White perianth; the trumpet is a lovely clear salmon-pink turning to clear pink when tinted light apricot-pink rim. This variety draws attention wherever shown. It is

PINK GLORY. .50 2.25 43.00

The "Orchid" among the Pink Narcissus. Pure white perianth, somewhat loose but graceful, with an exquisite long trumpet opening light Indian-yellow soon shading to a lovely pink, inside deep pinkish-apricot remaining so till the end. Without question the most beautiful "PINK" ever raised. When used as a corsage with some Asparagus green it is as delicate as an Orchid.

PINK RIM. .40 1.75 30.00

Stiff, pure white perianth of good form, the cup is a citron-yellow with a very distinct light apricot-pink rim. This variety draws attention wherever shown. It is quite distinct from all others. Strong tall stem.

PINK SELECT. .40 1.75 30.00

Pure white perianth opening pale yellow, soon turning to a lovely pink with apricot shading but mostly pink when fully developed. The trumpet is nearly 2 inches long and 2 inches wide. Excellent stem

ROSY SUNRISE. 1.25 6.00 115.00

Pure white perianth, well formed and of good substance; the trumpet is wide and flaring apricot, changing gradually to a soft pink. A giant among the "Pinks" and it will be one of the leaders among this class as soon as it becomes better known.

SIAM. .25 1.00 22.00

"The Queen of the New Pink Novelties". Pure white perianth of good substance, with a lovely and large, strongly fringed trumpet of pure salmon-apricot with distinct rose-pink shading. The inside of the trumpet turns to a soft Indian-yellow when fully developed. The color of this variety is rather difficult to describe.

ONE LARGE BULB OF EACH OF THE ABOVE 15 BEAUTIFUL VARIETIES OF THE NEW PINK DAFFODILS, all labeled (total value \$7.00) SPECIAL PRICE \$5.00.

This will make an ideal gift for a garden friend. We recommend this collection very highly, as it contains the very latest and best in the NEW PINK DAFFODILS.

PIONEER SEED COMPANY — DIMONDALE MICHIGAN

Wisconsin Wild Flowers

An 8 page bulletin just issued by the Wisconsin Experiment Station and written by Robert A. McCabe covers in a very limited way some of the wild flowers of the state.

Evidently the purpose of the bulletin is to interest citizens of Wisconsin in the setting aside of four natural areas in the state as wild flower preserves.

Parfrey's Glen at Merrimac, a deeply cut canyon, a natural rock garden and where many rare plants are now growing; the Prairie Knoll, the only acre preserve of upland prairie, 2 miles northeast of Ripon; Martin's Woods at Big Bend is a river bottom forest where many native wild flowers still grow; and the Flambeau River Forest, one of Wisconsin's last wilderness areas.

It would seem that the latter, especially, should be considered before someone cuts it down. Some 20 years ago a German flower seedsman while paying me a visit, made a trip thru northern Wisconsin and upon entering the burned over waste lands there, his whole subject of conversation was of the waste and neglect of the natural resources there; he took one picture after another and I have often wondered since, what use he made of them upon his return home. To brighten up the trip I made it a point to visit the Dells but this was so commercialized that I am afraid our Wisconsin trip turned out differently than I had intended it should.

It would be a highly desirable project for some of the Women's Clubs or flower organizations, to look into such natural projects and to take an active part in their care and operation.

Dioecious Plants

The following have two sexes on separate plants and to produce seed both plants must be planted.

Ailanthus, the male plant has an objectionable odor and for the garden use plants with only the female flowers.

Broussonetia, the male has pendulous catkins; the female globular heads.

Cercidiphyllum, the flowers of both are very small and the female trees are more beautiful, being spreading.

Chionanthus bears fruits only on certain plants.

Cycas, the male has cone-like flowers, the female in clusters.

Garrya elliptica, the male catkins are ornamental, greenish white, followed by showy black berries.

Shepherdia, for fruits both plants must be grown.

Skimmia has flowers often dioecious.

Zanthoxylum, both must be grown to fertilize seed and both are equally ornamental.

Ginkgo, use male trees only for ornament as the female fruits smell badly.

Hippophae, both must be planted together for its showy fruit display.

Idesia, male flowers are a little larger across than the female, it fruits in September and is very showy.

Ilex in some species must have both sexes, if berries are to be had.

Maclura, the sterile flowers are in racemes but the fertile ones are crowded on large spherical heads.

Morus, both flowers are in catkins.

Phellodendron, both necessary for fruits.

Subscription Price for the present \$2.00

COMPLETE LILY SEED LIST

Most lilies are easily grown from seed and hardy in the North. They should be planted in a well prepared bed where no manure has been recently added. The ideal bed would be the one prepared a year before and covered with a mulch. Sand should be mixed with the soil for best results. Lilies can be quickly grown from bulbs, delivered in the fall or from seed which are not hard to grow. For growing from seed the species are divided into two groups according to the method used in germinating them. Those marked (A) plant the seed outdoors in late fall when they germinate the following spring with no top growth the first year; transplant to the nursery row the 2nd or 3rd year. Those marked (B) sow in March or April outdoors or a month earlier indoors; they take about 3-6 weeks to germinate; carry the seedlings over the first year and transplant to the nursery rows the 2nd spring. There are other short cut methods which will be described in these columns from time to time.

—amabile. Red, dark spots; Turk's Cap; 3 ft; A.....	LILY-2. 50¢
—luteum. Yellow form; A.....	LILY-2L. 50¢
—auratum. (Type) Gold Banded L.; bowl-shape; 4-6 ft; B.....	LILY-4. 25¢
—Late Form. B.....	LILY-4L. 50¢
—pictum. White, heavily spotted crimson; 6 ft; B.....	LILY-4P. 50¢
—platyphyllum. More massive and robust; 6 ft; B.....	LILY-4Y. 50¢
—praecox. B.....	LILY-4R. 50¢
—tricolor. Like A. platyphyllum but with out crimson spots; B.....	LILY-4T. 50¢
—Aurelian Hybrids. A.....	LILY-47A. 50¢
—Backhouse Hybrids. B.....	LILY-47B. 50¢
—Bellingham Hybrids. B.....	LILY-47H. 25¢
—Bclanderi. Thimble Lily. Bell-shaped; wine red; 3 ft; B.....	LILY-8. 50¢
—callosum. Bright scarlet dotted purple; Japan; 2 ft; A.....	LILY-11. 50¢
—canadense flavum. Lemon yellow; 5 ft; B.....	LILY-13F. 25¢
—candidum. Madonna Lily. Waxy white; 4 ft; A.....	LILY-13. 25¢
—Catesbaei. Southern Red Lily. Scarlet, yellow spotted 2 ft; N. C.; B.....	LILY-18. 50¢
—centifolium. see leucanthum v. chloraster.	
—cernuum. Lilac spotted purple; nodding; 2 ft; A.....	LILY-20. 35¢
—columbianum. Bright reddish orange reflexed; 4 ft; B.....	LILY-23. 25¢
—Ingrami. Has larger and brighter flowers; B.....	LILY-23G. 25¢
—cordatum. White striped purple; erect; 4 ft; B.....	LILY-25. 50¢
—Crow's Hybrids. (Friemann Strain) Trumpet; huge cream; 5-6 ft; A.....	LILY-47W. 25¢
—Pink Selections A.....	LILY-47WP. 50¢
—dauricum Wilsonii. Deep apricot; erect; 3ft; A.....	LILY-32W. 50¢
—Davidii. Refined Tiger Lily; 6 ft; A.....	LILY-33. 30¢
—Willmottiae A.....	LILY-33W. 50¢
—formosanum. Late, trumpet; white; 8 ft; A.....	LILY-39. 25¢
—giganteum v. himalaicum. White; huge woodland lily; 6-12 ft; B.....	LILY-40H. 50¢
—Henryi. Golden Speciosum; recurved, soft golden orange; 6-8 ft; A.....	LILY-45. 25¢
—hollandicum. Up facing bowl-shape; many forms; 2-3 ft; A.....	LILY-46. 30¢
—Humboldtii v. magnificum. see H. v. ocellatum; B.....	
—Humboldtii v. ocellatum. Reddish bronze fls; drooping; 6 ft; B.....	LILY-48C. 50¢
—imperiale v G. C. Creelman Hybrids. Regale x Sargentiae; 6-8 ft; A.....	LILY-49C. 35¢
—japonicum. Pink trumpet-shaped; 2-4 ft; B.....	LILY-50. 50¢
—Kelloggii. Pink spotted with purplish-black; erect; 4 ft; Calif; B.....	LILY-51. 50¢
—Leichtlinii v. Maximowiczii Wadai. Early Tiger L. Recurved; 6 ft; A.....	LILY-58MW. 50¢
—leucanthum v. chloraster. Chinese White L; trumpet; 6 ft; A.....	LILY-54. 50¢
—myriophyllum v. superbum. Sulphur-yellow reddish outside; 6 ft; A.....	LILY-67. 50¢
—Longiflorum Hybrid. White Trumpet L. 3 ft; Japan; A.....	LILY-55C. 50¢
—White Queen. A.....	LILY-55Q. 50¢
—Marhan hybrids. Martagon album x Hansonii; yellow; 4 ft; B.....	LILY-47B. 50¢
—maritimum. Coast Lily. Reddish orange spotted purple; 4 ft; B.....	LILY-58. 50¢
—Martagon. Turk's Cap L. Rose or dark purple; 6 ft; B.....	LILY-59. 50¢
—album. White variety; B.....	LILY-59A. 50¢
—Maximowiczii: see Leichtlinii v. Maximowiczii.	
—medeoloides. Wheel Lily. Apricot to scarlet; recurved; 3 ft A.....	LILY-62. 50¢
—nepalense. Yellow stained purple inside; 3 ft; A.....	LILY-70. 50¢
—pardalinum. Leopard Lily. Orange-red spotted purple; 8 ft; B.....	LILY-77. 25¢
—giganteum. White tinged green; 12 ft B.....	LILY-77G. 50¢
—princeps: see imperiale.	
—pumilum. (tenuifolium) Coral L Bright scarlet ; 2 ft; A.....	LILY-91. 25¢
—regale. Royal L. White; 5 ft; China; A.....	LILY-96. 25¢
—album. A.....	LILY-96A. 50¢
—Palmer's Hybrids. Named varieties mixed; A.....	LILY-47M. 50¢
—Preston Hybrids. Named varieties; recurved; 3-5 ft; A.....	LILY-47P. 50¢
—regale. Huge white trumpets; 4-6 ft; A.....	LILY-95. 25¢
—rubellum. Small rose-pink; funnel-shape; 1-2 ft; B.....	LILY-99. 50¢
—Sargentiae. Rose-purple outside, white within; 6 ft; A.....	LILY-105. 50¢
—Bulbels. Sept. delivery only;\$5.00 per 100.....	LILY-105B1. 50¢
—Hybrid. S. x centifolium hybrids; A.....	LILY-105C. 50¢
—Bulbels. September delivery only.....\$5.00 per 100.....	LILY-105CB1. 50¢
—Scottiae hybrids. Willmottiae x elegans v. Mahogany; 3 ft; A.....	LILY-106H. 50¢
—Skyrocket. A.....	LILY-47S. 50¢
—speciosum v Kraetzeri. B.....	LILY-110K. 50¢
—magnificum hybrids. B.....	LILY-110M. 50¢
—punctatum. B.....	LILY-110P. 50¢
—rubrum. B.....	LILY-110R. 50¢
—superbum: see myriophyllum v superbum. B.....	
—Sulphur hybrids. A.....	LILY-47S. 50¢
—sulphureum: see myriophyllum v. superbum.	
—Bulbels: September delivery only.....\$5.00 per 100.....	LILY-67B1. 50¢
—tenuifolium: see pumilum.	
—Tsingtanense. A.....	LILY-120. 75¢
—umbellatum: see hollandicum.	
—Washingtonianum v. purpureum. White changing to lilac; 6 ft; B.....	LILY-126P. 50¢
—Willmottiae: see Davidii.	
—Lily Blend. All (A) kinds mixed.....	LILY-XA. 35¢
—Lily Blend. All (B) kinds mixed.....	LILY-XB. 35¢
—Lily Blend. All kinds; best for those growing in vermiculite.....	LILY-X. 35¢

This seed list continues from page to page and from issue to issue and runs alphabetically.

PIONEER SEED COMPANY — DIMONDALE MICHIGAN

GREENHOUSE

Suggestions



We shall carry a column each month under this heading in which we will list items of interest to those having greenhouse space

Cultural information is probably most interesting but we will be pleased to print any short articles from our readers on subjects of interest from the building and operation of the greenhouse to the raising and marketing of the plants and flowers grown. Make it your column, it's YOURS.

GREENHOUSE CUTTINGS IN AUGUST

The month of August is the time to put in cuttings of the following plants.

Acacia, half ripened wood, 60-70 degrees.

Akebia, half ripened wood, 45-50 degrees.

Alternanthera, in sand when rooted in flats; pot up in April, 60 degrees.

Aucuba, half ripened wood, 50-60 degrees.

Buddleia, soft wood in greenhouse.

Camellia, in late summer, ripened wood, 60-70 degrees F.

Coleus, September, 60-65 degrees F.

English Ivy, 50-60 degrees F.

Euphorbia fulgens, Scarlet Piume.

Heliotrope should have been taken in July, soft wood, 60 degrees, F.

Pachysandra, green wood.

GREENHOUSE SEEDING SCHEDULE

If you have greenhouse space the following should be planted from seed during August, to have them in flower at the proper time this winter.

Asparagus can be sown at any time now for late foliage.

Bellis, in coldframe, give shade until the seedlings are up.

Cineraria about the middle of August.

Cyclamen from July to January, use half leaf mold and half sand.

Kentia, keep in greenhouse at 75-80 degrees F.

Pansies, in coldframe, first half of August.

Perennials,, most all kinds for next year's growing outside.

Sweet Peas seed sown August 20th will be in bloom for Christmas. For January flowers sow September 1st and the main crop September 15th.

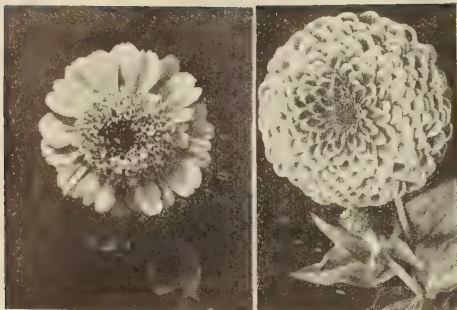
Vinca rosea, late August, in coldframe, the plants, of course, will have to be wintered inside.

SIBERIAN IRIS

At the beginning of August the Siberian Iris are laden with their seed pods and unlike the other Irises, the pods on this species are really attractive as well as the leaves. If the plants have enough room so that they stand out alone, they have a very graceful appearance. Keep the ground always mulched under them and you will not have the tips of the leaves turning brown; if a dry spell occurs it will pay to see that they get a good soaking twice a week; probably just a little nitrate of soda placed on the soil just before watering will benefit the color of the leaves, say 2-3 tablespoonsfull around each large plant. They grow 3-4 feet tall and should have a space of at least 3 feet apart.

African Violet germinates in 2-3 weeks.

Always press seed into the seed bed.



ZINNIA TYPES

Howard Giants

Crown O'Gold

LEWISIA COTYLEDON

Lewis cotyledon and all its forms (L. L. Howelli, Heckneri, Finchi, Purdyi) is found growing where the timber line and the alpine zone overlap up in the southwestern part of the Siskyoues. It is a true rock plant in the sense that it grows in crevices of rocks as well as among broken stones and debris of crumbling ledges. It seems to prefer gneiss, schist and shale and there amongst the loose rocks of north facing slopes it grows in the gritty compost of rock dust and leaf mold. Its roots grow upward leaving the plant with its feet higher than its head and thus only spreads a few inches below the surface.

The plant forms large rosettes of leathery leaves varying greatly in shape and outline according to individuals. The often enormous flowers truss carried from 6" to 12" above is composed of rather large individual blossoms having 8-10 petals. The prevailing shade is salmon-pink, each petal being striped with a deeper stroke down the middle.

This species is easily raised from seed, rarely yielding identical specimens either in leaf or blossom, all nevertheless possessed of entrancing beauty.

by Marcel LePiniec

GERMINATING DELPHINIUM SEED

Always germinate Delphinium seeds at around 50 degrees F. and this should be kept uniformly at this figure; usually it is best to place the germinating pan or box on the north side of the house or at least cover so that the strong light will not hit the soil.

So many times we have heard from different growers that they have better germination when the seed pan was on the north side of the house and the reason for this was the fact that some seeds require light, some no direct light and other, it makes no difference. Delphinium do best in a subdued light.

We suggest that sphagnum moss be used according to the article in the June issue, for this is almost a fool proof method and the chance for damping off is very much reduced.

As soon as the seedling appear they should be pricked out with out delay; also expose the seedling rather slowly at first to the direct sun light.

Delphinium seed should germinate in a couple of weeks and after three weeks not much more can be expected.

SOIL FOR GESNERIA

A basic soil mixture should consist of the following: two parts loam, one part leaf mold, one part sand, one-half part old cow manure. To this mixture add a generous amount of sterilized bone meal.

VINCA - VIOLA - XERANTHEMUM

VINCA. (VIN-kah) PERIWINKLE. Apocynaceae.

Erect and trailing plants. They are useful for ground cover and in vases and baskets. Thrive in moist shady places.

- rosea, Mixed. Sow seeds early in warm place; the GH Vinca..... **VINC-4X.** 15¢
- Pure White..... **VINC-4W.** 15¢
- Crimson..... **VINC-4C.** 15¢
- White with Pink Eye..... **VINC-4B.** 15¢
- Soft Pink..... **VINC-4P.** 15¢
- Rose..... **VINC-4R.** 15¢

VIOLA. (vye-OL-uh) VIOLET. Violaceae.

The genus consists of many attractive herbaceous perennials and a few annuals. The Violet and Pansy are the two most popular. They all thrive in a rich soil and in partial shade. During winter they are require a mulch of leaves. The germination of Violets is different from that of Pansies; if handled the same way, good results will seldom be gotten. Try planting the Violets in the fall, in flats, leaving them outside to get the freezing weather, when they germinate good the first thing in the spring.

VIOLA CORNUTA: Horned Violets. More or less tufted Violets. They come in many varieties of which the best and most popular are listed here. They do best in partial shade, rich moist soil and where it does not dry out too much in the summer.

- Arkwhight Ruby. Rich crimson with dark eye..... **VIOL-1A.** 20¢
- Bicolor. Light violet-blue; very pretty..... **VIOL-1B.** 20¢
- Blaua Schonheit. Clear deep blue; new German variety; fine..... **VIOL-1BS.** 20¢
- Blue Gem. Jersey Gem. Compact violet-blue..... **VIOL-1BG.** 20¢
- Chantreyland. Pure apricot; free flowering..... **VIOL-1C.** 20¢
- White Gem. Pure white; dandy..... **VIOL-1W.** 20¢
- Ilona. A very pretty wine-red..... **VIOL-1L.** 20¢
- King Henry I. Deep violet with heavenly blue center, bright eye..... **VIOL-1H.** 20¢
- Lord Nelson. Large violet-purple..... **VIOL-1N.** 20¢
- Lutea splendens. Large golden yellow..... **VIOL-1S.** 20¢
- Papilio. Light blue with white spots..... **VIOL-1P.** 20¢
- Thuringia. Dark blue with white eye..... **VIOL-1T.** 20¢
- Gem Varieties Mixed. Compact growing strain..... **VIOL-1XG.** 20¢
- Viola Blend. Blend of all the above varieties..... **Oz. \$5.00** **VIOL-1X.** 20¢
- W-F Blend. Bright gay colors in selfs, colors of reds, yellow, blue and apricot combined with many shades which are blotched; Oz. \$6.00..... **VIOL-1WF.** 25¢

VIOLA SPECIES: All hardy perennials.

- adunca. Very hardy woodland Violet; violet; 4"; Alaska..... **VIOL-2.** 25¢
- bellidifolia. Dwarf matted; violet or purple fls; 3"; Rockies..... **VIOL-15.** 25¢
- Douglasii. Orange-yellow veined purple; gritty soil; 4"; Calif..... **VIOL-34.** 25¢
- glabella. Big bright yellow fls; 12"; Alaska..... **VIOL-48.** 25¢
- Hallii. Upper petals dark violet, lower white; 4"; Ore..... **VIOL-53.** 25¢
- nigra, Black Imp. Quaint little Pansies; black velvet, small eye..... **VIOL-79.** 25¢
- saxatilis. Dawnside Sirain of Johnny-Jump-Ups. This is an exceptional strain and we receive many fine comments on it every year; best as annual..... **VIOL-114D.** 25¢
- sempervirens. (sarmetosa) Yellow fls; decumbent; B. C..... **VIOL-116.** 25¢
- Viola species Blend. Blend of above species only..... **VIOL-XS.** 25¢
- Viola Blend. All kinds mixed..... **1/4 Oz. \$2.00** **VIOL-X.** 20¢

VIRGINIA STOCKS: see *Malcomia*.

VISCARIA: see *Lychnis*.

WALLFLOWER: see *Cheiranthus cheiri*.

XANTHISMA. (zanth-IS-mah) Compositae.

Annuals and perennials native of Texas; solitary heads of yellow flowers for the border. They make good cut flowers.

- texanum. Star of Texas. Heads 2" ac; summer; 4 ft; TA..... **ZANT-1.** 20¢

XERANTHEMUM. (zeer-ANTH-em-um) IMMORTELLE. Compositae.

Easily grown annual everlasting flower with solitary heads of disk flowers. They are good as cut flowers and very popular for drying. Sow seeds early in the spring.

- annuum, Mixed. 3ft; double flowers..... **XERN-1DX.** 15¢
 - Purple. Double flowers..... **XERN-1DP.** 15¢
 - Rose. Double flowers..... **XERN-1DR.** 15¢
 - White. Double pure white..... **XERN-1DW.** 15¢
- PRICE:** Oz. 55¢; 1/4 Oz. \$2.00; 1 lb. \$5.00, prepaid.

YUCCA. (YUKK-uh) Adam's Needle, Spanish Bayonet, Joshua Tree. Liliaceae.

Suitable for bold effect in the border or for specimen plants on the lawn. Some are hardy, others need greenhouse care in the North. All easily grown from seeds.

- filamentosa. Reclassified recently to Y. Smalliana, which see.
- glauca. Greenish white fls; fls to 6 ft; lvs to 3 ft; hardy in North..... **YUCC-14.** 25¢
- gloriosa. Fls greenish white to reddish; lvs to 2 1/2 ft; fls to 8 ft; HHP..... **YUCC-15.** 25¢
- mohavensis. Mojave Y. 10 ft; fls purple-white; HHP..... **YUCC-20.** 25¢
- Smalliana. Adam's Needle. White; fls to 12 ft; hardy in North..... **YUCC-25.** 20¢
- Yucca Blend. Above species mixed..... **YUCC-X.** 20¢

ZINNIA. (ZINN-ee-uh) (crassima) Compositae.

A genus of some 10 species of which Z. elegans is our popular garden Zinnia. These are tender annuals and they may be started early indoors where they can be transplanted to flats and set out as soon as frost danger is passed. A little pinching back will produce more bushy plants; set out 1 1/2-2 feet apart for the large type. They are especially good in the border, in bedding and for stiking effect in mass plantings, and if solid colors used they will be much more effective.

DAHLIA-FLOWERED TYPE: The plants are 2 1/2-3 feet tall with large Dahlia-like blooms; especially good for bedding.

- Canary Bird. Rich canary yellow..... **ZIN-1C.** 15¢
- Crimson Monarch. Large deep crimson..... **ZIN-1C.** 15¢
- Dream. Most unusual rosy lavender..... **ZIN-1D.** 15¢
- Exquisite. Light rose with a deep rose center..... **ZIN-1E.** 15¢
- Illumination. Deep rose self; fine..... **ZIN-1N.** 15¢
- Golden Dawn. Rich golden yellow..... **ZIN-1GD.** 15¢
- Golden State. Beautiful golden yellow..... **ZIN-1GS.** 15¢
- Luminosa. Large luminous bright pink..... **ZIN-1L.** 15¢

PIONEER SEED COMPANY — DIMONDALE MICHIGAN

COMPLETE ZINNIA LISTING

—Meteor. Rich red; darkest of the reds.....	ZIN-1M. 15¢
—Polar Bear. Large creamy white.....	ZIN-1W. 15¢
—Royal Purple. Best in rich purple.....	ZIN-1RP. 15¢
—Will Rogers. Lovely brilliant scarlet-red.....	ZIN-1WR. 15¢
—Dahlia-flowered Blend. A rich blend of the above varieties.....	ZIN-1X. 15¢

PRICES: Ounce, 70¢; ¼ lb. \$2.25; 1 lb. \$6.00, prepaid.

GIANTS OF CALIFORNIA TYPE: The plants are 3-4 feet tall with large flat flowers on long stems and especially recommended for cutflowers; they are fine in beds, too.

—Brightness. Bright pink.....	ZIN-2B. 15¢
—Cherry Queen. Brilliant cherry rose.....	ZIN-2CH. 15¢
—Crimson Queen. Deep crimson.....	ZIN-2CQ. 15¢
—Enchantress. Pretty light rose with deeper center.....	ZIN-2E. 15¢
—Golden Queen. Golden yellow.....	ZIN-2GQ. 15¢
—Grenadier. A bright dark red.....	ZIN-2G. 15¢
—Lavender Queen. Deep rosy lavender.....	ZIN-2L. 15¢
—Miss Willmott. Large soft rich pink.....	ZIN-2M. 15¢
—Orange Queen. Deep golden orange.....	ZIN-2R. 15¢
—Purity. Best white in any Zinnia.....	ZIN-2W. 15¢
—Rose Queen. Striking deep rose.....	ZIN-2Z. 15¢
—Scarlet Queen. Glowing deep scarlet.....	ZIN-2S. 15¢
—Giants of California Blend. A real blend of the above.....	ZIN-2X. 15¢

PRICES: Ounce, 70¢; ¼ lb. \$2.25; 1 lb. \$6.00, prepaid.

FANTASY TYPE: Petals are long, curved and pointed, resembling those of the night flowering Cactus; 4 inches across and 2 inches deep. This strain includes Star Dust and many other varieties; plants 2½-3 feet tall.

—Gold Dust. Pretty golden orange.....	ZIN-3G. 15¢
—Melody. Pretty orchid lavender.....	ZIN-3M. 15¢
—Orange Lady. Bright deep orange.....	ZIN-3L. 15¢
—Pink Frills. Soft flesh pink.....	ZIN-3F. 15¢
—Rosalie. An intense rose color.....	ZIN-3R. 15¢
—Star Dust. Beautiful canary yellow.....	ZIN-3SD. 15¢
—White Light. Best pure white.....	ZIN-3WL. 15¢
—Wildfire. Dazzling scarlet.....	ZIN-3WF. 15¢
—Fantasy Blend. Carefully made blend of above varieties.....	ZIN-3X. 15¢

HARMONY TYPE, SCABIOUS FLOWERED: Plants are 2½-3 feet tall, bearing numerous medium sized flowers resembling annual Scabiosa or harmony Marigolds. This improved strain has long stems and is excellent for cut flowers.

—Finest Mixed. Bright shades.....	Oz. 75¢; ¼ lb. \$2.25.....	ZIN-4X. 15¢
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GAILLARDIA FLOWERED TYPE: Navajo Blanket Flowered. Flowers resemble Picta Double Gaillardia, in both form and coloring; brightly colored and perfect little fls.

—Finest Mixed. An All American winner.....	ZIN-5X. 15¢
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PUMILA TYPE: Dwarf double or Cut-and-Come-Again. In best pastel shades. The flowers are 2½-3 inches across, round in shape and good length stems for cutting. Sow in rich sandy loam; bloom in 50 days.

in rich sandy loam; bloom in 30 days.		
—Canary Yellow.....		ZIN-6CY. 15¢
—Crimson.....		ZIN-6C. 15¢
—Golden Orange.....		ZIN-6GR. 15¢
—Pinkie. Pretty rose pink.....		ZIN-6P. 15¢
—Salmon Rose.....		ZIN-6SR. 15¢
—Scarlet.....		ZIN-6S. 15¢
—Snowball. Pure white.....		ZIN-6W. 15¢
—Spun Gold. Butter yellow.....		ZIN-6SG. 15¢
—Sunshine Tints. Rich pastels.....		BIN-6ST. 15¢
—Finest Mixed.....	Oz. 70¢; ¼ lb. \$1.70; Lb. \$5.50, prepaid.....	ZIN-6X. 15¢

PEPPERMINT STICK: A NEW medium sized Pumila-type-flower Zinnia. Flower petals are striped in various color combinations such as red and white, red and yellow, purple and white, carmine and white, orange and yellow; about 70% striped flowers.

—Finest Mixed.....	ZIN-7X. 15¢
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SUPER GIANTS: An extremely large flowered type.

—Floradale Scarlet. Uniform scarlet, cactus type blooms; slightly smaller than Dahlia-flowered; 2-2½ feet tall.....	ZIN-3F. 25¢
—Luther Burbank. In interesting pastel colors.....	ZIN-8LB. 15¢
—Super Fantasy. David Burpee. Mixed colors.....	ZIN-8B. 15¢
—Finest Mixed. All super giants mixed.....	ZIN-8X. 15¢

EARLY WONDER TYPE: Earliest of all Zinnias, for short season locations and autumn planting. Plants 18-24 inches tall, basal branching. many 3-4 inch flowers on long wiry stems having no laterals and almost no leaves.

—Fandango. Salmon cerise-pink.....	ZIN-9F. 25¢
—Fiesta. The darkest red.....	ZIN-9E. 25¢
—Gypsy. Shades of deep orange.....	ZIN-9G. 25¢
—Padre. Bright scarlet.....	ZIN-9P. 25¢
—Rose Pink.....	ZIN-9RP. 25¢
—Blend. Above varieties mixed.....	ZIN-9X. 20¢

LILLIPUT or POM POM TYPE: The Lilliputs are among the most popular Zinnias for cut flower use. Flowers are small, compact, symmetrical and on strong plants, 1½-2 feet tall.

—Black Ruby. A showy maroon.....	ZIN-10B. 15¢
—Canary Gem. Clear canary yellow.....	ZIN-10CG. 15¢
—Crimson Gem. Best crimson.....	ZIN-10CR. 15¢
—Dainty Gem. A dainty bicolor rose.....	ZIN-10DG. 15¢
—Golden Gem. Pretty golden orange.....	ZIN-10GG. 15¢
—Lilac Gem. Best clear lilac.....	ZIN-10LG. 15¢
—Pink Gem. Pure deep pink.....	ZIN-10PG. 15¢
—Purple Gem. Best in purple.....	ZIN-10PR. 15¢
—Salmon Gem. Beautiful salmon rose.....	ZIN-10SM. 15¢
—Scarlet Gem. Brilliant scarlet.....	ZIN-10SG. 15¢

Continued on Page 80.

PIONEER SEED COMPANY — DIMONDALE MICHIGAN



ZINNIA TYPES
Scabious Flowered Lilliput

EPILOBIUM RIGIDUM

Amongst the most showy alpine, *Epilobium rigidum* stands in the front ranks. It is a dwarf Fireweed, 6-8 inches high found in the narrow crevices of rocks and the stony rubble crowning the Siskiyou. It grows very much like the Leadwort (*Plumbago larpentae*) sending long wiry stolons from which arise erect stems clothed with oblong bluish gray leaves. The large rose flowers often more than an inch across are borne in a close terminal raceme.

Their texture is that of the sheerest chiffon and one wonders how they withstand the tearing winds of the heights. It forms large colonies which during August and September paint the upper reaches of the Siskiyou with splashes of incredible brilliance.

BEFORE SEEDS CAN GERMINATE

Not all seeds are ready to germinate as soon as they are ripe; this is especially true the farther north you go and this is easily understood, for it would suit nature's purpose better if the seed germinated in the spring, therefore there are factors within the seed to control the delay. We call this dormancy.

But when the spring finally comes around changes have taken place within the seed and temperature, mainly, makes the signal to the seed germ to start to work.

Moisture, temperature, oxygen and light are factors that start growth. The first two are understood by all. The way oxygen affects the seed is partially understood. The part oxygen plays in the chemical changes that take place within the seed is understood but there may be, and no doubt is, other factors. Certain it is that during and directly after spring showers, growth is noticeably rapid. We believe that the oxygen in the form of ozone may be especially responsible for the quick growth.

The fact that light is necessary for many kinds of seeds to start germinating, has long been known and, too, the lack of light is also necessary on other seeds. Just how this is accomplished, no one seems to know but no doubt, some rays from the sun, as they hit the earth, have a different effect on them when the earth moves towards the rays, making them quicker and as the earth moves away, the rays are lengthened or slower.

The angle at which these rays hit the earth, varying as it does from day to day, may be the direct cause of timing the start of growth in the spring and of retarding it in the fall.

To germinate many of the woody plants, shrubs and trees, as well as many other types, it will usually pay to follow nature's methods and allow the seed to remain at least one season in the seed bed for germination.

The Rudbeckias

The arrival of August brings the Rudbeckias. Why more are not grown in the border, I cannot say, for they certainly are pretty and easy to grow.

There are several varieties all of which are pretty. The species are in annuals, biennials and perennials, the latter two are best. Some of the named varieties, such as the German variety, My Joy, are especially pretty.

Growing 2-3 feet high, they should be spaced at least a foot apart. Start both the biennials and perennials now or if started late in August, winter them over in the cold frame and set out early in the spring.

MULCHING BEDS NOW

The beds that have been mulched a year at least, are now loose, moist and fertile and right next to these beds, that were spaded and worked down the ground becomes stiff and dry at the least dry spell. In looking at such plants as the Lilies, Callas, Pansies,

etc., it would have been best if these beds could have been mulched last year and this spring when the seedlings were set out, this mulch could have been pulled back a little and then placed around the plants when in the ground.

Therefore, if you have a supply of mulching material on hand, cover the beds now being gotten ready for next year; it will pay.

CACTUS

Cactus seed germinates in about 30 days. A successful way to grow them is to use half well decayed sod and half washed sand. Use 4 inch pots, that are new or wash old ones well before using.

Firm the soil well, sow seeds and cover with ¼ inch layer of the washed sand, better if it has been baked in the oven, to avoid algae growth. Water from the bottom; cover the pot with glass and keep at 70 degrees F.

When seedlings appear, ventilate as they damp-off readily and transplant when the spines appear on the seedlings.

DROCOCEPHALUM AUSTRIACUM

This a very pretty little perennial with fairly large deep blue flowers that are now (August 1st), going to seed. The leaves look much like those of Lunaria but deeper in color and more attractive. The plant is 6-8 inches high and covers around a foot of ground space. When it is in flower its deep blue color is very attractive; it would look well in the rockery over low stones; probably it would be even better in a little shade.

ARTEMISIA ABSINTHIUM

Have you ever grown this pretty plant? It is the common Wormwood but nevertheless it is attractive in the border.

The foliage has a silvery effect and I think would be very effective in clumps of 10 or more plants, in a large border. The height is 6-7 feet and the plants should have a 3 foot space to form fully developed bushes. If the soil is too rich they will fall over, especially if planted too close to each other.

Planting too deep is a more common fault than too shallow.



GOOD GARDENS — GOOD FOOD — MAKES PEOPLE HAPPY, WEALTHY and WISE

CLASSIFIED ADVERTISEMENTS

We wish to make this classified section of special value to our readers who may have plants, roots or any other item that they wish to sell or exchange.

The charge will be 20¢ per line of seven words, per insertion; four insertions at price of three. When offering plant material know your nursery laws.

HELP WANTED

HELP WANTED. We have a good position open for a young woman who has had training in botany; should be able to type. Pioneer Seed Company, Dimondale, Mich.

PLANTS FOR SALE

AFRICAN VIOLET LEAVES. 12 for \$1.00 named varieties, plants 3 to 6 in. tall 3 for \$1.00, my choice. Gypsy Series leaves 20¢ each 7 for \$1.00; plants 2 for \$1.00. Rose-onna leaves 3 for \$1.00; Please add 25¢ postage. Mrs. Sophia M. Baker, 2733 S. E. 35th Place, Portland, 2, Ore.

SITUATION WANTED

TO EXCHANGE

SEEDS FOR SALE

MRS. HUGH'S HYBRID IRIS. Excellent colors, 25 assorted \$2.50; 100 for \$7.50, prepaid. Pioneer Seed Co., Dimondale, Mich.
DODECATHEON CUSICKII. Fresh seed now ready, 50¢ per packet. Pioneer Seed Co., Dimondale, Mich.

DAYLILY SEEDS hand pollinated from choice hybrid reds, rose, pastels. Fresh seed (mixed only) 10 for 30¢; 40 for \$1.00. Ffoulkes, 610 Bryan, Jacksonville, 2, Fla.

RARE PLANTS. If you grow rare plants you will find these columns your best outlet. Try a small ad and see.

TREE AND SHRUB SEEDS: We carry in season over 800 tree and shrub seeds; if you need these seeds be sure you get our list. Pioneer Seed Co., Dimondale, Mich.

GARDEN NEEDS

MILLED SPHAGNUM MOSS

A finemilled grade of high class Sphagnum especially for the germination of flower seed. It come in one bushel bags and weighs as much as 12 lbs in some bags.

PRICE: Per bag, prepaid by parcel post, for \$2.25 per bag.

VERMICULITE

Special for seed beds, for cuttings or for mixing in potting soil. It comes in three sized paper bags; the small size will take care of the germination needs of the small grower.

PRICES: 4 qt. bags, 55¢; ½ bushel bags, \$1.00; 2 bushel bags, \$2.45, prepaid by mail.

FERTO-POTS

These are organic pots which can be set in the ground with plants; they retain the moisture add plant food to the soil and pushes the seedling along for a quick start.

They come in three sizes, 2 inch 60¢ per doz; 100 for \$2.50; box of 500, \$6.50, prepaid. 2½ inch size, 65¢ per doz; 100 for \$2.80; 250 for \$3.25; 3 inch size, 80¢ per doz; 250 for \$3.90. All prepaid by parcel post.

POT STAKES

3/8 inches wide; painted white, all prepaid. 4" - 60¢ per 100; carton of 1,000 for \$4.00. 5" - 60¢ per 100; carton of 1,000 for \$4.20. 6" - 70¢ per 100; carton of 1,000 for \$5.00. 8" - 65¢ per 100; carton of 500 for \$4.50. 10", \$1.00 per 100; carton of 250 for \$2.25.

SPECIAL GARDEN STAKES:

7/8" wide painted white; prepaid. 8", \$1.15 per 100; carton of 250 for \$2.70. 1 1/8" wide; painted white; prepaid. These make a fine and cheap garden stake. 12" long; \$1.80 per carton of 100.

COPPER WIRED TREE, SHRUB TAGS:

3½" long, 5/8" wide, for tagging nursery stock or for wired labels for trees and shrubs; painted white.

60¢ per 100; \$5.00 per carton of 1,000

ACTIVO

2½ lb cans, \$1.00; 7 lb cans \$2.25, prepaid. Pioneer Seed Company - Dimondale, Mich.

MAKE USE OF THE CLASSIFIED SECTION - IT'S YOURS

Pleasure in Flowering Bulbs as a Hobby

Most people are more contented and (shall we say) happy when their spare moments are occupied by some thing of interest which we so often call their hobby. Apparently we hobbyists are all busy people; one person with photography, another wood work, or painting or writing, etc., and there are the flower lovers who make a hobby of growing Roses or Dahlias or Orchids, but to have the acquaintance of only one other person whose hobby is collecting flowering bulbs of all varieties; and here I use the word bulb in the nurseryman's manner of speaking, of course botanically some are corms, some bulbs, while others are tubers.

Recently I heard a talk by a retired man about his hobby. He started off by saying, "If a retired man has a hobby and is over enthusiastic about it he talks crazy; if a retired man has no hobby he goes crazy". There is almost no end to the many hobbies and interests men and women can enjoy; and some can become quite profitable; but an interest in any variety of flowers makes a wonderful and healthy pastime.

Finding the Right Flowers

Some years ago I was greatly interested in Gladiolus and was hybridizing in the hopes of bringing forth a good blue flower; but the thrips seemed to make a sudden and forceful attack on my garden of a few hundred Glads; the leaves turned white and the flowers withered. Not knowing how to handle the situation in those days, I was thoroughly disgusted and disposed of the whole collection. I knew there were a few other kinds of bulbs such as Narcissus, Tulips, Hyacinths, Freesias, etc. which were listed in most catalogs but they didn't seem of interest until passing a garden one day in which there was a bed of assorted Sparaxis and the brilliant flowers with their combinations of colors caught my attention and at once I became interested in flowering bulbs. To my surprise I found there were many species and varieties besides the ones I had already known and as my collection grew, my interest grew also and now there are bulbs from many different countries gathered together in my garden. Still there are others to collect; one from Costa Rica, four from Peru and Ecuador, others in Natal, S. W. Africa, Australia, etc. Its a great hobby and full of interest yet it may cover too large a field for most people and in this case as is already being done one can specialize in any one of the bulb group.

Flowering Bulbs of Interest

As mentioned before in this article there are flower lovers making a collection of the Narcissus, Gladiolus hybrids, Lilies, Iris, etc; a very fine collection of species and hybrids can be made from any one of the above, but for those who want something different there is the Arum family with flowers shaped like Calla lilies and in colors from white to deepest red and sizes from seven or eight inches to the one and a half to two foot dark red Dracunculus. The Haemantus family has about thirty species and some are very fine; especially H. katherinea; a fine species from Natal. The Amaryllis (Hippeastrum) an old time garden favorite has become very popular on account of the many new hybrids now available; some of the flowers are quite large and when not listed under fancy name, are known as Amaryllis Mammoth. They set seed readily and are easy to grow. My garden contains a pretty hybrid which the grower

By W. E. WHITE

claimed is a cross between Amaryllis and Clivia giving it more of the Clivia color but the Amaryllis flower. There are few bulbs that will give the beginner a bigger show for his money.

For the Smaller Garden

For the gardener who wants a small and inexpensive collection of very colorful bulb flowers there is the Sparaxis with its many hybrids; of course at once you think of S. tricolor which is usually listed in the many catalogs but there are two other species, grandiflora and bulbifera; the latter being

likely most of them are hybrids. The flowers are charming all through their development. At first they are erect and cup-shaped. At night they close and remain closed on dark days looking some thing like oblong pieces of bright colored candy; as they grow older they open wider and become more star-shaped. As a cutflower they make quite a novel bouquet, especially when closed.

There are flowering bulbs native to almost every country but the largest assortment is found in the southern part of Africa; and to those people in South Africa who may read this article, I would suggest a most interest-



This shows a part of the plantings of bulbs on our seed farm.....Admiring them, is John Ireland, our most dependable employee. Mr. Ireland is 83 and still working. He has now dug up all the bulbs you see in this picture! In the back ground, admiring the flowers is Ladd, our luxury horse; he is about as near as you can get to him! All he has to do is a very little cultivating but more effort is expended in catching him than he is called upon to do when he is caught and that is always by some trick which only works once; we have only one of these ideas left in reserve now and probably we should hold this to get him up for the winter. Mr. Ireland often remarks, when he looks at this fellow, "My, how I would like to be a horse on this place"

more of a tubular yellow flower; but the greatest pleasure is with the many hybrids and most of these are from a cross between Sparaxis and Straptanthera some times listed as Sparanthera. Here you get many colors and combinations of colors from white through rose, brick red, carmine, dark red to dark purple and many of them with that lovely violet center from its Streptanthera parentage. I recently saw a couple of very lovely hybrids, one in which the cream colored flowers had a medium sized pink stripe down the center of each petal which the grower smilingly called his "painted lady". Another hybrid which caught my attention was a rich red flower with a short cream stripe on each petal at the center of the flower. This he had named Red Beauty.

For a still smaller collection there is the Ixia with colors from white through yellow, burnt orange, pink, red to dark violet. There are a number of named varieties, and

ing hobby would be a garden of native flower bulbs, and don't let that word native confine you to the southern tip or Cape province for Natal has some wonderful bulbs; so has S. W. Africa and no doubt other parts of your country and the enjoyment of this hobby will be in finding each new flowering bulb to add to your garden.

IRIS IN ALASKA

You may be interested to know that while certain types of Iris do very well here, others are a loss each year. Alaska is quite famous for its wild Iris of the fibrous rooted type, which grow in very swampy ground. (I believe you have had some seed of this species collected by someone in Alaska). We have transplanted large clumps of these into our own yard and after the first year they put forth a fine display, never missing

Continued on Page 88

BEGINNING ANOTHER SEED LIST

We begin again classifying the seed list, which brings the available seeds up to date. It takes 3 months to list the complete stock of seeds; new ones are being received and they will be promptly listed. Seeds offered here come from every corner of the world and there is no other catalog of flower seeds to equal this. Seeds from many foreign growers are included as well as those from hundreds of collectors all over the world. We are continually on the lookout for rare and hard to find seeds and will be pleased to hear from collectors or those growing rare and useful flowers.

ABRONIA (ah-BROH-ni-ah)

Sand Verbena. Dwarf or trailing plants with fragrant white, yellow or pink flowers. Treat as annual, sowing seed early indoor for summer bloom; they do better when planted direct in the open ground and in the South seed can be sown in the fall. Remove husk before planting; often slow in germinating. Sunny, light soils best.

umbellata gr. fl., Rose A pretty little trailer; rose colored fls; HHA.....**ABRO-1** 15¢

ACACIA (ah-KAY-shah)

Shrubs and trees mostly from warm regions and they can be grown outdoors in Calif. 18-20 degrees F as low as they can stand. Soak seed in hot water leaving this to stand 10-40 hours. They grow fast and are ornamental.

Baileyana. Attractive silver-blue fol; bright golden yellow fls; HHS.....**ACAC-3** 20¢
Farnesiana. Very fragrant much branched Sh; 10 ft; Texas; HHS.....**ACAC-5** 25¢

ACANTHUS (ah-KAN-thus)

Bear's Breech. Perennials, thistle-like small shrubs; about 3 ft tall, fls white, rose or lilac on 18" spikes. They need heavy winter protection in the North; best in rich well drained soil. Seed sown in April will flower in Aug. THP.

—**mollis v. latifolia.** Broad glossy lvs; courious pale purple fls; HB.....**ACK-1** 20¢

ACHILLEA (ak-i-LEE-ah)

Milfoil or Yarrow. Hardy herbaceous perennials easily grown in any fair soil in full sun. Flowers in clusters of small heads, white, yellow and pink making good cut fls. Seed planted indoors in March will flower same year. They make good border plants.

—**Bakeri.** Large rich yellow; 3 ft; extra good; HP.....**ACH-3** 20¢
—**chrysoma.** Dense woolly foliage; bright yellow fls; 9"; HP.....**ACH-8** 20¢
—**Clavennae.** Finest RG species; silvery lvs; white daisy fls; 6"; HP.....**ACH-9** 20¢
—**filipendulina.** Has showy round heads; yellow; robust; 5 ft; HP.....**ACH-10** 20¢
—**Cloth of Gold.** A pretty golden flowered variety.....**ACH-10C** 20¢
—**millefolium.** Round heads of white fls; 2 ft; HP.....**ACH-20** 15¢
—**Parmica v. The Pearl.** Double pure white; excellent for cutting; HP.....**ACH-24** 20¢
—**Taygetea.** A new variety; lemon colored heads; 2-3 ft; HP.....**ACH-33** 20¢
—**Achillea Blend.** All species and varieties.....**ACH-X** 15¢

ACONITUM (AK-oh-nyt-um)

Monkshood. Herbaceous perennials, seeds germinate slowly, sow out doors in May or June in shade or they can be started indoors earlier but plants do not like transplanting; thin to 18" apart; bone meal is good as a fertilizer.

palmatum. Blue fls 2½ in. across; Himalayan Mts; HP.....**ACD-16** 25¢
lycotionum. Wolfsbane. Hardy, yellow fls, 4 ft, moist soils, HP.....**ACD-14** 25¢
—**Wilsonii.** Handsome spikes, large porcelain blue fls, late, 3 ft, HP.....**ACD-9W** 25¢
—**Barker's Variety.** Pretty novelty in amethyst-blue, 6 ft, HP.....**ACD-9B** 25¢

ACROCLINIUM: see *Helipterum*.

ACROGEHALUS

—**sericus.** Shrubby compact growth; soft pale blue fls; 1-2 ft; S. Rhodesia **ACRO-1** 25¢

ACTAEA (ak-TEE-ah)

Baneberry, Cohosh. The showy terminal flowers develop into pretty white berries; they are useful in the rock garden, border or wild garden, doing best in shady places. Sow seed in late fall or spring; herbaceous perennials.

arguta. Very hardy, red berries, 2 ft, HP.....**ACTA-2** 20¢

ACTINOMERIS (ak-ti-NOM-er-is)

Tall Sunflower-like native perennials for the hardy border or wild garden and resembling *Helianthus* and *Verbesina*. Grow like Sunflowers.

—**alternifolia.** Fls. yellow; 1-2" ac; rays; 8 ft; HP.....**ACTI-1** 20¢

ADENOCARPUS (ad-ee-no-CAR-pus)

—**decordicans.****ADEK-1** 30¢

Grown in the GH in N or in open in the S; low shrubs from S. EU and Asia Minor.

ADENOPHORA (ad-e-NOF-o-rah)

Lady Bells. Erect perennials with fleshy roots, flowers in shades of violet. They are good in border, being grown like *Campanulas*; disturb as little as possible.

confusa. Erect, fls deep blue, 1" long; 3 ft, HP.....**ADEN-2** 20¢

—**Potantinii.** Bell-shaped fls, in panicles, violet; 3 ft; HP.....**ADEN-20** 20¢

ADONIS (ah-DOH-nis)

Hardy herbaceous annuals and perennials; some make good RG plant and grow well in both sun or shade; fls solitary terminal, crimson or scarlet with a dark colored base. Sow seed of all kinds either in the spring or fall; they are easily grown.

aestivallis. Summer Adonis. Scarlet flowers in June-July, 1½ ft; HP.....**ADON-1** 15¢

AGAPANTHUS (ag-ah-PANTH-us) Lily-of-the-Nile

Blue Lily of the Nile. Beautiful So. African bulbous plant, easily grown. Not hardy and in the North the bulb must be stored indoors during winter. They make ideal tub plants and last for years.

longispathus. A new sp., fls on 4 ft stems; free fl; compact.....**AGAP-5** 25¢

orientalis. Large heads blue fls; 4 ft; S. Cal; HHP.....**AGAP-2** 20¢

—**alba.** White flowered variety.....**AGAP-2W** 20¢

—**Agapanthus Blend.** All species listed.....**AGAP-X** 20¢

—**africanus, Mixed.** Lily of the Nile.....3 ft, mixed varieties; TP.....**AGAP-IX** 30¢

You can order your seeds any way you wish, either by writing the full name down of the flower wanted or just using the symbol at the end of the line; it is easier and plainer with just the symbol but be sure to make it very plain and the correct one.

PIONEER SEED COMPANY

DIMONDALE MICHIGAN

The Flowering Dogwood

The genus *Cornus* or the flowering Dogwoods, consists of some 40 species of trees and shrubs, all important, mainly for their ornamental uses. To those wanting bird shelter, the Dogwoods combine both, for their fruits are eaten by the birds.

They are all native of the temperate zone, chiefly in the northern but a few are native of Mexico and Peru.

Cornus florida, our flowering Dogwood, is the best known. The seed consists of a two-seeded stone and is either dried in this state or the stones separated from the flesh, washed and dried.

The seed should be fresh as two year old seed, under ordinary storage conditions loses its germination. If you are located in the far north, preparations can be made for the planting before freezing weather sets in. Small quantities can be planted in flats or large ones, in frames or outdoor seed beds, that have already been prepared.

In nature the seed falls on the ground during the winter and germinates the following spring. Some germinate the second year, but, no doubt, this is because the particular seed did not come in contact with the soil, or for other reasons. In a prepared seed bed with the seed correctly planted, there is no use in waiting two years. The best soil for the seed bed is a rich loam.

Where the seed is handled in flats, they should be given a warm stratification in moist sand for about 60 days and then a cold one till spring when they should be planted in their outdoor seed bed. The seed can be mixed in moist sand and held at about 70-85 degrees F, or say up on a top shelf in the living room; after this place them out doors.

Dogwood seed has a dormant embryo as well as a certain degree of seed coat impermeability and the longer the seed is held, the more this is present. I prefer the seed with the pulp as it tends to eliminate part of this difficulty, as well as having other advantages.

A low temperature is necessary during the winter to break the embryo dormancy. In commercial plantings, involving large seed beds, the seeds are often dipped in concentrated sulfuric acid. The addition of peat with the sand, may be of benefit, especially when washed seed is planted; the flesh if left on the seed tends to cause an acid condition, and the seed germinates best in a slightly acid condition. The usual temperature for the cold stratification, if done indoors, is around 32-40 degrees F; it is not necessary to "deep freeze".

When seeds are stratified in boxes of wet sand, over winter, they should be planted into their outdoor seed bed as early as possible, in the spring, and never later than the first part of May.

SPEARMINT FOR WINTER GROWING

The common Spearmint, *Mentha spicata*, is very easily forced, both for its fragrance and its fresh green tips for the winter dishes. Take well budded root cuttings early in September and plant fairly close in 6" pots, which must be left outdoors until they have had a good freeze when they can be brot inside where they can be given warmth and light and plenty of moisture you will find their response quick. For soil use a sifted mixture of good compost and a sprinkling of lime.

You can try taking Chives and Tarragon inside handling them in much the same way.

AGERATUM - ALLIUM - ALOE

AGERATUM (ager-A-tum)

Herbaceous annuals having tassel-like clustered heads; blue or white; they are easily grown, are tender in the N and must not be set outdoors till all frost danger is passed. They are useful as edging, in the front border, in porch or hanging baskets; popular. *Houstonium*: This is incorrectly listed as *A. mexicanum*. The commonly grown *Ageratums* all come under this species.

- Blue Ball. Deep blue ball-shape plant; compact; 9"; HHA.....AGER-3B 15¢
- Blue Bedder. Lavender-blue; compact, 4"; pretty for beds; HHA.....AGER-3C 15¢
- Blue Cap. Rich blue, dome-shape plant; RG; extra nice; HHA.....AGER-3D 20¢
- Blue Star. Deep blue, 6", very nice for edging; HHA.....AGER-3E 15¢
- Dwarf Imperial, White. Popular bedding sort; strong growth.....AGER-3RW 15¢
- Blue.....AGER-3RB 15¢
- Fairy Pink. Softest salmon-pink; edging or pots, 6"; HA.....AGER-3Y 20¢
- King of the Blues. Low compact plants; deep blue; HHA.....AGER-3F 15¢
- Little Dorrit. Pretty deep blue; fine for edging and pots; HHA.....AGER-3G 15¢
- White. A pure white strain; fine bedding, boxes and border.....AGER-3GW 15¢
- Midget Blue. A 2-3 in. plant; compact; fine for edging; HHA.....AGER-3H 15¢
- Purple Perfection. Deepest blue, 9"; fine for boxes or bedding;.....AGER-3J 15¢
- Silver Star. Pretty dwarf white, 6 inches, HHA.....AGER-3K 20¢
- Swanley Blue. Azure-blue; thickly bunched, 8"; HHA.....AGER-3L 15¢
- White Queen. Pure white; 8"; dandy; HHA.....AGER-3M 15¢
- White Beauty. Considered the best white; 7 inches; HHA.....AGER-3P 15¢
- Zuriblau. Pretty dwarf blue novelty from Switzerland; HHA.....AGER-3Z 15¢
- Mixed. Blend of all the above garden varieties.....AGER-X 10¢

AGRIMONIA (ag-rim-MOH-nee-ah) Agrimony

Erect perennial plants with small yellow fls in racemes followed by burr fruits; shade. —odorata. Yellow; 3 feet; Europe; HP.....AGRI-2 20¢

AGROSTEMMA: see *Lychinis*.

AGROSTIS (ah-GROS-tis)

A group of tufted annual and perennial ornamental grasses. —nebulosa. Cloud Grass. Dwarf and neat; plant indoors early; 1 ft, HA.....AGRO-5 20¢

ALLAMANDA (al-ah-MAM-dah)

Shrubs and climbers native of Brazil. Easily grown in the greenhouse in N. In the South they thrive in the open. Showy purple or yellow flowers. —cathartica. Pretty vine; golden yellow fls 3" across; HHA.....ALLA-1 20¢

ALLIUM (AL-i-um)

Flowering Onion. Nearly all those listed here are hardy perennials. They are attractive plants in the border, some in the rock garden. Sow seeds as for perennials, usually in early spring. Rich, sandy soils best; full sun.

- albopilosum. Lilac in umbels 8 inches across; 3 ft; dandy, HP.....ALUM-2 25¢
- amorphilum. Golden yellow flowers; Europe; HP.....ALUM-4 30¢
- cernuum. Nodding buds, erect fls; lavender to white, May; 1 ft; HP.....ALUM-21 20¢
- falcifolium. An extra good RG species; 4"; deep rose; HP.....ALUM-23 25¢
- Gayeri. Very pretty 14 inch plant; rose-pink fls; HP.....ALUM-37 25¢
- karataviense. Whitish fls with purple mid-rib; 1 ft; HP.....ALUM-44 25¢
- neopolitanum. Large 3 inch white flowers; 1 ft; S EU; HP.....ALUM-58 25¢
- nigrum. (A. speciosum) Violet fls; 2 ft; HP.....ALUM-60 30¢
- oreophilum. Purple in many flowered umbels; Caucasus; HP.....ALUM-67 40¢
- peninsulare. Rose-purple fls in loose umbels; 1 ft; HP.....ALUM-72 25¢
- praecox. White fls petals, bright purple mid-vein; 1 ft; HP.....ALUM-74 15¢
- pulchellum.....ALUM-75 40¢
- pyrenaicum. White flowers with a green mid-rib; 3 ft; HP.....ALUM-78 20¢
- roseum. Rose fls in loose umbels; 18"; HP.....ALUM-81 20¢
- rubrum. Flowers replaced by reddish bulbs; 1 ft; Rocky Mts; HP.....ALUM-83 30¢
- Schoenopasum v. sibiricum. CHIVES. Rich purple fls; 1 ft; HP.....ALUM-87S 20¢
- senescens. (A montanum).....Lilac in many fl'd umbels; 2 ft Eu; HP.....ALUM-90 25¢
- sipitatum.....ALUM-96 30¢
- tanguticum. Bluish lilac with darker midrib, in dense umbels; HP.....ALUM-99 30¢
- tibeticum. Deep blue flowers; 6"; Tibet; HP.....ALUM-102 35¢
- triquetrum. Large white fls in loose umbels; 18"; HP.....ALUM-104 25¢
- tuberosum. Leaves not hollow; July-Sept; 18"; HP.....ALUM-105 20¢
- unifolium. Pink Allium. Calif; 15"; bright rose; HHP.....ALUM-106 20¢
- Allium Blend. A valuable collection of Allium species.....ALUM-X 20¢

ALOE (AL-oh)

Perennial succulent plants native of the Cape. They make ornamental pot plants in the North. Grow in sandy soil with a little peat and rotted manure and small chunks of old mortar or lime; keep on dry side.

—excelsia. From So. Rhodesia.....ALOE-24 20¢

ALONSOA (al-on-SOH-ah)

Mask Flower. Easily grown in a warm locaion. Sow seed indoors in spring and set plants out after frost danger; for growing indoors in winter, sow in summer and set plants indoors early in the fall.

- Warszewiczii. Cinnabar or scarlet-red; 3 ft; Peru; grow as an annual.....ALON-7 20¢
- Alonsoa Blend All the above kinds.....ALON-X 15¢

ALSTROEMERIA (al-stre-MEE-ri-ah)

So. American greenhouse plants grown from tuberous roots that are treated as bulbs. Rich soil and a sunny position needed. Seed can be planted in pots, August or later, which bloom the following summer.

- aurantiaca. Orange spotted red, free, very hardy, 3 ft; HP.....ALST-1 20¢
- augustifolia. Pink, orange or flame, 3 ft; HP.....ALST-1A 20¢
- Ligtu. Pink, red and yellow fls; 2 ft; HP.....ALST-5 20¢
- hybrids. Peruvian Lily. Pink, red or yellow; 2-3 ft; HHP.....ALST-5H 20¢
- Pelegria. Lily of the Incas. Pink spotted purple; 1 ft; HP.....ALST-6 25¢
- alba. Pure white form; very nice; 1 ft; HP.....ALST-6W 25¢
- Blend. All kinds mixed.....ALST-X 20¢

ALTHAEA (al-THEE-ah)

Hollyhock. Flowers in terminal erect racemes or spikes; easily grown in good loam. Mostly perennial; the biennials, of which the common Hollyhock is the principal one can be started in July for flowers the following summer.

- ficifolia. Fig-leaf Hollyhock. Deep yellow fls; 5 ft; HP.....ALTH-3 20¢
- hybrids. Many collar combinations, 6 ft; HB.....ALTH-3H 20¢
- rosea. The common Hollyhock, which see.

Narcissus Species

N. triandrus alba is a beautiful little plant, the flowers are pendulous, a pale creamy white with 2-3 flowers on a 6-8 inch stem.

The varieties in the species are pulchellus with primrose-yellow flowers and calathinus with large white flowers with crown larger than the type.

N. minor minius flowers as early as February and is a perfectly shaped Daffodil with primrose-yellow segments and deep yellow trumpets with neatly frilled edges.

N. minor is similar but flowers 2 weeks later and has larger flowers.

N. moschatus is 10-12 inches tall and has larger pale sulphur-yellow flowers which gradually fade till nearly white; its delicate coloring makes it particularly attractive.

N. cyclaminus has lovely hybrids, narrower trumpets than the usual trumpet Daffodils.

N. triandrus or Angel's tears, comes in a number of lovely hybrids, is primrose-yellow or white. It has lovely little clear yellow trumpets, narrow in shape with somewhat narrower slightly reflexed segments in a similar shade.

A hybrid, *W. B. Milner* has small trumpet flowers of very pale creamy yellow which when grown outdoors is nearly white.

N. bulbocodium or the Hoop-Petticoat Daffodil, has a very large wide-open mouth, trumpet-shaped corona and narrow segments; grows 9 inches high with narrow rush-like leaves, the flowers a creamy yellow.

N. bulbocodium monophyllum attracts the greatest attention; pure white; and nearly as large but on 4 inch stems.

N. juncifolius has small cups with margins usually waved; ¾ inch across on 6-8 inch stems.

N. rupicola is practically stalkless the flowers in bright yellow.

N. odoratus variety *rugulosus* is sweet scented with paler segments and slightly deeper colored fluted cups.

All these little *Narcissus* should have some sand worked into the soil, especially if it is a little heavy. They should have a well drained bed and in full sunshine.

PLANTING IRIS

At this time of the year the Iris will be one of the main planting items. It may be that some orders will be delivered later this year than usual which is caused by the labor shortage. However, this need not worry the planter; one can work his soil and have it in an ideal condition and when the roots arrive they will go into an ideal bed.

The old roots are of little value, if any, and you will find that as soon as your roots start to grow, new ones will form. We have always set our Iris roots so that the leaves point towards the south; you will note how the root of the Iris leans one way. You will find that by planting this way the sun will affect the plant more and the growth will be quicker, just as it is with nursery stock when heeled in the soil; if the top slant towards the north growth will be slow but if the tops are towards the sun the growth starts immediately. Another important point in planting Iris is not to plant them too deep but just before winter starts you can draw up soil over the root and just about bury it. This will prevent its heaving out of the ground during the winter and then in the spring it will be easier to hoe the soil down to where it should be rather than have to replant all your roots again. Where many Iris are planted in rows, a cultivator with a good shovel on the Iris side will do the work easily and quickly.

ALYSSUM - AMARANTHUS

ALYSSUM (ah-LIS-um)

Magwort. Annuals and perennials, trailing to 1 ft in height, and all showy; the perennials bloom very early in the spring; the annuals during early summer.

A. maritimum. Under this heading are listed all the common annual Sweet Alyssum. Botanically, they belong under *Lobularia maritima*. They are all hardy annuals, doing best when started early. They are used in edging or bedding, in pots, baskets or boxes as well as in the rock garden. All low growing and very free flowering.

Carpet of Snow. Compact strain, pure white; 3"; HA	ALYS-15C. 15¢
Snow Cloth. Very dwarf, compact, snow white; 3"; HA	ALYS-15S. 15¢
Little Gem. Compact 6" plants, pure white; HA	ALYS-15G. 10¢
Lilac Queen. Deep violet, 6", very pretty; HA	ALYS-15Q. 15¢
Violet Queen. Uniformly deep violet, compact, fragrant, 6", HA	ALYS-15V. 15¢
Sweet Maritimum. Very fragrant; 1 ft, white; boxes or baskets; HA	ALYS-15M. 15¢
Mixed Annual Alyssum. All varieties	ALYS-15X. 10¢

— arduini.	ALYS-6. 25¢
— idaeum. Silvery green foliage; fls whitish; Crete; HHP	ALY-12. 25¢
— Markgraffii. Bright yellow, dense panicles; 1 ft; Albania; HP	ALYS-17. 30¢
— Molendorianum. Yellow fls; fol silvery; Bosnia; 5"; HP	ALYS-19. 30¢
— murale.	ALYS-21. 30¢
— orientale. Collected in Albania	ALYS-22. 30¢
— spinosum. White or pinkish; woody, 1 ft; S EU; HP	ALYS-31. 20¢
— lutescens. Yellow form of <i>Lobularia maritima</i>	ALYS-16. 25¢
— montana. Trailing, deep yellow; 3"; RG; HP	ALYS-20. 20¢
— saxatile v. Gold Dust. Spring flowering; 1'; golden yellow; HP	ALYS-26G. 15¢
— compastum. Compact masses, yellow, April-May, 1 ft; HP	ALYS-26C. 20¢
— Silver Queen. Primrose fls; fine for RG; 1 ft; HP	ALYS-26S. 20¢
— sulphureum. Pretty sulphur-ellow; 1 ft, HP	ALYS-26U. 20¢
Rock Garden Specise. Contains a collection for RG; extra choice; HP	ALYS-34X. 20¢

AMARYLLIS (am-ah-RIL-is)

One species, *A. Belladonna*, of which there are several varieties or forms. Just lately the botanical name has been changed to *Brunsvigia rosea*. The usual time for fresh seed is April to June and should be sown as fresh as possible.

— Mammoth Red. California grown	AMAL-1. 25¢
— Mammoth Red and White. Red flowers with some whites also	AMAL-1W. 25¢

AMARANTHUS (am-ah-RAN-thus)

Amaranth. Annuals native in mild climates and grown for their colored foliage and the heavy red flowers; they are easily grown and will produce better flowers if grown in poor soil; for that dry bank, these should be fine; full sun.

caudatus. Love-lies-bleeding. Long drooping red fls; 4 ft; HA	AMAR-1. 10¢
— oeschberg. Erect, dark red flowers; HA	AMAR-1B. 15¢
— viridia. Same but with white fls; HA	AMAR-1W. 15¢
— nanus. A dwarf form, HA	AMAR-1N. 15¢
hybridus hypochondriacus. Prince's Feather. Showy; red; 3 ft; HA	AMAR-2H. 20¢
— splendens. A rich red with brilliant red fol at top of plant	AMAR-4D. 15¢
— salicifolius. Fountain Plant. Slender leaves, 3 ft; HA	AMAR-4S. 15¢
— tricolor. Joseph's Coat. Erect; leaves blotched and colored; 3 ft TA	AMAR-4. 15¢
— Molten Fire. Maroon fol; each branch tipped crimson; 4 ft; TA	AMAR-4F. 15¢
— Pigmy Torch. Dark crimson; dwarf plants; 1 ft; TA	AMAR-4P. 15¢
— Sunrise. Bronze crimson and scarlet; 3 ft; TA	AMAR-4R. 15¢
Amaranthus Blend. All kinds mixed; HA	AMAR-X. 10¢

AMBERBOA (am-bur-BOH-ah)

Annuals with jaggedly cut or divided leaves and flower heads in purple, blue or pink resembling Bachelor Buttons. Easily grown from seed and should be planted where plants are to grow; half hardy annuals native of Spain and Morocco.

muricata. Easy; stars of pale purple with creamy centers; HHA	AMBR-2. 20¢
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AMMOBIUM (a-MOH-bi-um)

Australian everlasting, perennial, with solitary heads of yellow fls surrounded by silvery-white bracts. Easy to grow, usually as an annual but can be planted in the fall. Flowers remain white if cut early.

— alatum. Winged Everlasting. Foliage white-woolly, 3 ft, heads 2" ac	AMOB-1. 15¢
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AMPELOPSIS (am-pe-LOP-sis)

Tendrill-climbing deciduous shrubs belonging to the Grape Family. Grows well in any fair soil; some not hardy in the North.

quinquefolia. Virginia Creeper, American Ivy. (Parthenocissus)	AMPL-13. 20¢
Veitchii. Boston Ivy. (Parthenocissus)	AMPL-12. 20¢

AMSONIA (am-SOH-ne-ah)

Perennials 1-3 ft tall, having bluish flowers followed by rather attractive milkweed-like pods; border, easily grown.

Tabernaemontana. Star fls of soft blue; May-June; HHP	AMON-2. 15¢
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ANACYCLUS (an-ass-SYE-klus)

A race of daisies from Med. regions related to *Pyrethrum*; a few species are very desirable dwarf perennials with finely cut foliage and large white or yellow daisy-like flowers with backs of the rays striped with brilliant red. Sunny, stoney positions best.

— Anacyclu Blend. All kinds mixed; HP	ANAC-X. 15¢
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ANAGALLIS (an-ah-GAL-is) Pimpernel

Low growing annuals, biennials and perennials having pretty little star-like flowers in red, blue and white that grow out of the axils of the leaves on hair-like stems. Very free flowering; some especially nice for the rock garden. Best in a loose warm soil.

— linifolia. Mixed. Large flowered	ANAG-2X. 20¢
— Scarlet.	ANAG-2S. 20¢

ANAPHALIS (an-NAF-al-iss)

White woolly perennials for the rock garden or border; small white flowers and can be used as everlastings.

margaritacea. Pearl Everlasting. Fine for dry fls; white; 3 ft; HP	ANAP-1. 20¢
nubigena. Himalayan alpine for RG dwarf wooly; white fls; HP	ANAP-4. 25¢

This seed list continues from page to page and from issue to issue and runs alphabetically.

PIONEER SEED COMPANY — DIMONDALE MICHIGAN

Friendly Letters and Some Explanations

We always feel good when someone wishes us success and compliments us on our efforts. Every one of these letters that have been coming in each day are appreciated a lot, and we thank you.

However, we hesitate printing them because we are not sure the writer would want us to do so, so in writing us and definitely not wanting it to appear in our columns, the mere notation, "not to be printed" will be sufficient. We quote:

But J. C. Green, of Los Angeles, writes the following which we take the liberty of printing. He says:

Compliments, felicitations, and cheers for your house organ in its new format. It's surprisingly nice — and useful, too.

The little bits of information scattered throughout, bring surprises at the right moment.

Later, proof reading will be more accurate and the Classified Column fill up. The June issue has interesting factors: Your July Garden Record; Germination Time; and Orris Root processing, etc.

The Abbreviations

Suggest that "Abbreviations" now on page 13 be placed on same page as statement of ownership, so that we may know where to find those guiding facts. *SAIER'S GARDEN MAGAZINE*, suits me better than any others I have read in several decades".

With cordial good wishes from,

J. C. Green.

One reason for printing Mr. Green's letter, is that we want to comment on some of his suggestions, all of which we will put into operation.

We try to keep our articles short and practical, with no wasted words or space fillers. The larger articles, we like to have rather complete on the subject they cover. His reference to "house organ" needs some explanation, too. *SAIER'S GARDEN MAGAZINE* is an entirely different organization but we are closely associated with the Pioneer Seed Company, in fact, under one roof. The magazine never would have been published if it were not for the help of the Pioneer Seed Company, thru its advertising support as well as its purchase outright of part of the magazines issued, which it mails to its customers as they are requested. However, the only way to get EVERY issue is to subscribe for it and the present subscription price of \$2.00 per year barely covers the cost of mailing.

You have already noticed an improvement in the printing; most of the typographical errors that were uncorrected, were due to lack of help, but this, too, is being gradually bettered.

The Classified Section

The Classified Section we have great hopes for because it will supply an outlet for our readers to offer items they grow and at a small cost which they can afford. We expect this section to cover 2 or 3 pages before long.

We have in formation now a set of cultural directions or the different methods of starting all types of seed which we will publish every six months; each paragraph to be represented by a letter which will appear in the seed listing. To know just what is the best practice for starting that particular seed, you can just refer to the paragraph under

Continued on Page 85

ANCHUSA - ANEMONE - ANODA

We intend the classifications to be correct, even to the capitalization of the species names and will appreciate any corrections. Index will appear in a near future issue.

ANCHUSA (an-KEU-suh)

Excellent perennials for the summer border in a sunny place; hardy, easily grown, flowering July-August or even later. Comes mainly in blue colors. Best in good soil with plenty of old manure. Be careful not to damage tap root when transplanting.

- azurea, **Dropmore Variety**. Lovely bright blue fls; 4 ft; HP **ANCH-2D** 15¢
 —Opal. Same as above but a lighter pretty blue; HP **ANCH-2P** 15¢
 capensis, **Blue Bird**. Vivid indigo-blue, compact, 1½ ft, HA **ANCH-4B** 15¢
 Anchusa Blend. All kinds and varieties; HP **ANCH-X** 15¢

ANDROSACE (an-DROS-ah-see)

Rock Jasmine. True alpine annuals and perennials for the rock garden or low border. Many require special handling in the alpine or rock garden. Leaves usually tufted or in rosettes and often woolly. Flowers small in red, pink or lavender, usually borne in rather flattened rounded clusters. Requires a dry gritty, well drained soil but not too suffer from drought. Seed may remain in the soil over a year.

- carnea v. **brigantiaca**. Has narrow leaves and white flowers **ANDR-3B** 30¢
 cylindrica. Tight cushions; 1" tall; choice alpine; HP **ANDR-6** 50¢
 Hookeri. Pretty little plant, brilliant pink, 2", HP **ANDR-10** 25¢
 sarmentosa **chumbyi**. Easy RG plant; mats of small rose fls; 3", HP **ANDR-18C** 25¢
 sempervivoides. Fine RG plant; umbels of pink fls; 3", HP **ANDR-19** 25¢
 septentrionalis **subumbellata**. Sprays of small white fls; 5", HB **ANDR-20S** 25¢
 yunnanensis **ANDR-23** 30¢
 —Androsace Blend. All kinds mixed **ANDR-X** 20¢

ANEMONE (ah-NEM-oh-nee)

Attractive perennials blooming in the spring, summer or autumn; fls come white, rose, red and purplish. They thrive in a rich sandy loam, many in shade; they make beautiful plants in the border and some in the RG. The florist species are A. coronaria, fulgens and hortensis. These come in single and double fls and are grown mostly as fall or winter flowers. and grown much as are freesias; these are not real hardy.

CORONARIA: Poppy-flowered Anemone. This is the popular florist Anemone.

- Cain. Single giant flowered strain, French **ANEM-10C** 20¢
 —Creagh **Castle Strain**. Famous English strain **ANEM-10CC** 25¢
 —Monarch. A new strain in best colors **ANEM-10M** 20¢
 —Single **Giants**. Large flowered strain in many colors **ANEM-10N** 20¢
 —Hollandia. Very pretty red with dark centers **ANEM-10H** 20¢
 —St. **Brigid**. True Irish strain, double brilliant fls, not hardy N of D.C. **ANEM-10S** 25¢
 —Mr. **Fokker**. Beautiful single bright blue **ANEM-10SF** 30¢
 —His **Excellency**. Pretty scarlet flowers **ANEM-10SE** 25¢
 —The **Governor**. Double bright scarlet flowers **ANEM-10SG** 25¢
 —Mixed. All the A. coronaria varieties blended **ANEM-10X** 15¢

- alpina. Cream inside, purplish out; 3" across; 1½ ft; HP **ANEM-3** 25¢
 —sulphurea. A yellow variety **ANEM-3S** 35¢
 biflora **ANEM-8** 20¢
 barbulata **ANEM-7** 30¢
 cylindrica. Candle A. Greenish white clusters; 2 ft, HP **ANEM-11** 25¢
 demissa. White fls purplish outside, in clusters; Aug-Sept; 1 ft; HP **ANEM-16** 15¢
 Drummondii. Fls cream, blue outside; June-July; moist soil; RG, 6", HP **ANEM-17** 25¢
 globosa. Fls red to bronze-green; May-Sept; 18", HP **ANEM-19** 20¢
 Halleri. For sunny places, lilac fls; June; RG; 6", HP **ANEM-20** 25¢
 Hybrida japonica. Autumn flowering hyb's white tinged rose, 3 ft; HHP **ANEM-21** 20¢
 magellanica **ANEM-32** 20¢
 —Giant **Form** **ANEM-32G** 20¢
 Lesseri **ANEM-28** 20¢
 montana. Dark violet, drooping fls; 6"; HP **ANEM-34** 20¢
 multifida **ANEM-35** 35¢
 myosoidiflora: see Brunnera macrophylla.
 nicricans. Purple-black fls; Pulsatilla Group; 1 ft; HP **ANEM-38** 20¢
 occidentalis. White or purplish fls, 2" across; May; 1½ ft; HP **ANEM-39** 20¢
 patens nuttalliana. Purple fls very early in spring; 8", HP **ANEM-44N** 20¢
 —pratensis. Dark purple; 1 ft; Pulsatilla Group; HP **ANEM-45** 20¢
 Pulsatilla. Violet fls; April; likes lime, fine spring fls; 1 ft, HP **ANEM-46** 15¢
 —ameena **ANEM-46E** 20¢
 —alba. A beautiful creamy white form; 8" HP **ANEM-46A** 15¢
 —australis **ANEM-46T** 20¢
 —Violet-**Blue**. Splendid color strain **ANEM-46V** 20¢
 —Gayeri **ANEM-46G** 20¢
 —Mallenderi **ANEM-46L** 20¢
 —montana. Dark violet drooping flowers **ANEM-46M** 25¢
 —patens. Flowers purplish, 2½" across **ANEM-46P** 25¢
 —seerottina **ANEM-46S** 20¢
 slavica. Collected in Austria **ANEM-54** 20¢
 rivularis. White tinged blue; 1½" across; 3 ft; India **ANEM-51** 25¢
 sylvestris. Pure white, fragrant, nodding fls; May-June; 1½ ft, HP **ANEM-56** 20¢
 virginiana. White or greenish fls, fine for meadows; June-Aug; 3 ft HP **ANEM-60** 20¢
 vitifolia. Grape-leaf A., fls white, 2" ac. in cymes, July; HP **ANEM-61** 30¢

ANODA LAVATEROIDES

- hasta. Handsome plant; lovely pink fls 10 ft; HA **ANOD-2** 20¢
 Opelcup. Continuous bloomer; June-Nov; fls, blue and pink; 3 ft HA **ANOD-4** 15¢
 —Snowcup. Shining snow-white; 30"; profuse bloomer, HA **ANOD-4S** 20¢

ANTENNARIA (an-te-NAY-ri-ah)

Everlasting; Pussy's Toes. Perennials used in the wild or rock garden, also much used as dried flowers in winter bouquets. Best in dry soil, easily grown. Flowers in heads and the leaves are white-woolly clustered at the base.

- aprica. Dense low mats, white or pink heads, 5"; HP **ANTA-2** 25¢
 rosea. Foliage distinctly white and woolly; fls rose; 1½ ft; HP **ANTA-17** 25¢

This seed list continues from page to page and from issue to issue and runs alphabetically.

PIONEER SEED COMPANY — DIMONDALE MICHIGAN

LILIES IN KOREA

It is not a common matter to receive letters from our soldiers about flowers. This need not seem strange for most are very young men and their life not just exactly suited for flower hunting.

However, two letters have been received from Clifford Miller, whose home is in Gray, Oklahoma.

Korea has long been noted for its lilies and we have gotten many a pound of seed gathered in the mountains there, especially has this been so of *L. tenuifolium*. However, Mr. Miller says, "I saw a great many that I think are the same as your *L. amabile*" and he also mentions seeing a pure yellow lily but did not get it. We hope that he now will be able to secure seed of it but the movements of troops is such that flower seed hunting is out of the question.

When one is in a position to gather new flowers in strange lands it is best that only the seed be gathered. If it is possible to observe its flower first, than a fully developed flower should be saved, as well as a leaf, pod or any part that is out of the ordinary; notes should also be taken as to its time of flowering; the soil type; whether moist, dry, etc and, too, the general climate of the region.

FRIENDLY LETTERS

Continued from Page 84

the letter, and the subject will be covered in detail.

There is a little more to this, however. To cover all species there will have to be included the experience of a great many different growers and it will be necessary to gather much of this information from our reader's methods, and not just our own, so we will look forward to your suggestions.

Our subscription price of \$2.00 per year barely covers the cost of printing and mailing; with the prospect of higher postage, it would be best for you to subscribe NOW!

SPHAGNUM FOR GERMINATING



It is simply impossible to germinate many seeds without the use of milled sphagnum moss. If you were over your seed pans all day long as the professional grower is you may find you could get along without it, but no professional grower would fail to have the fine moss on hand. It will save many a packet of valuable seed from loss due to an hours neglect, that cannot be avoided by one having other duties.

BUSHEL BAGS: \$2.25, postpaid. This will last the average grower a year.

PIONEER SEED COMPANY
Dimondale, Michigan.

ANTIRRHINUM - SNAPDRAGONS

ANTHEMIS (AN-the-mis)

AN-the-mis) Golden Marguerite, Chamomile. Very free flowering perennials with daisy-like flowers, blooms June-Sept. Does well on dry sandy soils and in full sun. Sow seeds in late April or early May, outdoors, or they can be started earlier indoors. Thin plants in garden to 10" apart. Profuse bloomers.

—arabica.	ANTH-3.	25¢
Kelwayi. Pure golden yellow; July-frost; 2½ ft; HP	ANTH-6	10¢
montana. Charming sp, pure white fls 1 ft; HP	ANTH-9	15¢
—simplex. Large flowers	ANTH-10S.	15¢
Sancti-Johannis. Deep orange fls, 2" heads; 3 ft; HP	ANTH-13	15¢
tinctoria. Golden yellow ray fls; fine for cutting; 2½ ft; HP	ANTH-14	10¢
—Perry's Variety. Bright lemon yellow; fine; 2 ft; HP	ANTH-14P.	15¢
—Anthemis Blend. All kjnds.	ANTH-X.	15¢

ANTHERICUM (an-THER-i-kum)

Tuberous-rooted herbs of the Lily Family having racemes of small white lily-like flowers and long narrow grassy leaves. Common names are St. Bernard's Lily, ST. Bruno's Lily. In the North they require protection. They make fine GH plants or for use in lawn vases in the summer. Require plentiful supply of water when blooming. liliago. Neat species, small white fls; 18"; HP

ramosum. Tufts of grass-like foliage; white flowers; RG; 2 ft, HP	ANTE-3	25¢
undulatum. White fls in racemes, easy; native S. Af.; 1 ft; HHP	ANTE-4	25¢
	ANTE-5	25¢

ANTIGONON (an-TIG-oh-non)

A tendril climber grown in the North as a GH vine but in the South it is a popular hardy climber where it has a long blooming season. In the GH it requires plenty of light and not too much root room. Keep roots dry during rest in winter. leptopus. Climber to 40 ft; rose-pink fls; Mexico, tender

	ANTI-1	15¢
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ANTIRRHINUM (an-ti-RY-num)

Snapdragons are popular cut flowers both in the garden and the GH. Early flowers can be had by starting them indoors in Feb. or later on till April. They are tender perennials but grown as annuals. The seed being small, care should be used in germinating them, they may be slow. A majus is the commonly grown species. Set out after danger of frost is past. For winter bloom sow in August and get seedlings into pots as soon as possible. Pinch off terminal but whenever transplanting.

ALL RUST RESISTENT STRAINS.

MAGUS GRANDIFLORUM: Tall large flowered, making excellent garden cut fls.

—Firefly. Crimson and yellow, popular	ANTR-1F	15¢
—Primrose Queen. Very large flowers in a soft primrose	ANTR-1Q	15¢
—Prince of Orange. A popular orange color, excellent for cutting	ANTR-1P	15¢
—Queen Victoria. The best pure white; necessary in all plantings	ANTR-1V	15¢
—The Sentinal. Bright orange-scarlet with a white throat	ANTR-1S	15¢
—Vulcan. A very bright crimson-scarlet with a dark foliage	ANTR-1L	15¢
—Yellow King. Pure rich yellow	ANTR-1K.	15¢
—Blend of the above colors	ANTR-1X	15¢

MAXIMUM: Tall giant flowered spikes; extra for the good grower.

—Appleblossum. A soft rose suffused with yellow	ANTR-2A	20¢
—Canary Bird. A pure soft canary yellow	ANTR-2B	20¢
—Catleya. A soft silvery rose-lilac with a golden yellow tip	ANTR-2C	20¢
—Copper King. Coppery scarlet turning into a pure copper color	ANTR-2K	20¢
—Old Gold. A beautiful old gold blend that makes it ideal for cutting	ANTR-2G	20¢
—Purple King. A velvety dark garnet color	ANTR-2P	20¢
—Snowflake. A very lovely pure white that stands up good	ANTR-2W	20¢
—The Rose. One of the most popular deep pinks that holds its color	ANTR-2R	20¢
—Blend of majus grandiflorum varieties.	ANTR-2X.	20¢

MAJUS NANUM: Half dwarf; large flowered; especially good for bedding; stands well.

—Black Prince. A very dark maroon; the darkest color	ANTR-3B	20¢
—Cottage Maid. A bright pink with a white throat	ANTR-3M	20¢
—Crimson King. The best in the deep crimson colors	ANTR-3C	20¢
—Flame. A brilliant orange-scarlet self	ANTR-3F	20¢
—Golden Queen. A large flowered rich golden yellow	ANTR-3Q	20¢
—Rose Eclipse. A large flowered strain in brilliant light rose	ANTR-3R	20¢
—White Queen. The best of this most important color	ANTR-3W	20¢
—Blend of above colors. A hand made blend with good color range	ANTR-3X	20¢

MAJUS NANUM GRANDIFLORUM: Semi-dwarf plants with giant flower heads; beds.

—Bonny Lass. A delicate rose color; soft and attractive in beds	ANTR-4B	20¢
—Exquisite. Soft rose with sulphur yellow lip on white ground	ANTR-4E	20¢
—Golden Monarch. Distinct bright golden color; extra large flowers	ANTR-4M	20¢
—Lady Bird. A cerise and white variety, very distinct	ANTR-4L	20¢
—Orange Glow. Salmon-orange, falls paler, very large flower	ANTR-4G	20¢
—St. George. Orange-scarlet a beautiful and striking color	ANTR-4S	20¢
—Blend of above colors. Hand made for a good bedding display	ANTR-4X	20¢

MAJUS NANUM MAJESTIC: All around type; 2-2½ ft; for both bedding and cutting.

—Avalanche. The best pure white in this strain	ANTR-5A	20¢
—Fire Dragon. Cerise-scarlet with golden center	ANTR-5F	20¢
—Orange King. Rich terra cotta with golden lip merging to deep orange	ANTR-5K	20¢
—Pink Jewell. Has large waved flowers in bright pink	ANTR-5J	20¢
—Rose Beauty. A brilliant pure rose color	ANTR-5Z	20¢
—Rose Marie. Pretty salmon-rose with a golden center	ANTR-5M	20¢
—Sunset. Bright terra cotta shadeh rosy salmon	ANTR-5S	20¢
—Twilight. Delicate apricot with an old gold center, shaded salmon	ANTR-5T	20¢
Blend of the Majestics. A hand made blend of above varieties	ANTR-5X	20¢

PUMILUM: Excellent dwarf and compact type ideal for low beds.

—Amber Queen. Light orange tinged with amber	ANTR-6A	20¢
—Orange Queen. Best orange bedder	ANTR-6Q.	20¢
—White Queen. The finest white bedding variety	ANTR-6W	20¢
Pumilum Blend. Hand made blend of all varieties; full range	ANTR-6X	20¢

FORCING VARIETIES: Best varieties for greenhouse growing and winter flowering.

—Afterglow. A rich golden bronze color	ANTR-7A	25¢
—Cheviot Maid Supreme. An early flowering bright pink	ANTR-7C	25¢
—Glorious. Bright reddish bronze, 3 ft.	ANTR-7G.	25¢
—Lucky Strike. The best pure white variety	ANTR-7W	25¢
—Rose Queen. The best dark pink variety	ANTR-7R	25¢
—Sunlight. A beautiful orange-bronze color	ANTR-7S	25¢

ANTIRRHINUM continued on Page 87.

PIONEER SEED COMPANY — DIMONDALE MICHIGAN

Cyphomandra batatea

The common name for this pretty tree is the Tomato Tree and is a native of Peru. The fruit is egg-shaped and smooth-skinned. At first greenish purple, it changes in ripening to reddish yellow. In the purple fruited variety the fruit becomes a deep purple when ripe. The fruit is good when eaten raw. It may be stewed or made into jam.

When grown from seed, keep in the container until following spring. This is to provide sufficient root system as the tree will grow too rapidly if planted in the ground in its first stage. This plant must have lots of water at all times due to the fact Ceylon has a rainfall of more than 300 inches per year while Florida has about 52. Dig a large hole; make a mixture of a third fertilizer (cow manure), a third peat (German Peat preferred) and a third compost or good grade top soil. This must be placed to a depth of not less than 2 feet in the ground. About 10 pounds of course white sand should be added to this mixture. Do not try to produce fruit the first year.

In April following the year after the tree is planted, take 1/4 pound of refined phosphate 1/4 pound of nitrate of soda, 1/4 pound of potash and 1/4 pound of manganese; mix this formula thoroughly (mix dry) and put around entire tree, 9 inches from the base and 2 feet out. Spread this on top of the ground, cover with dry leaves and water thoroughly. Unless there are heavy rains, water once a day for one week after placing this formula around the tree. This formula is required to bring your tree into production, otherwise you will get bloom and no fruit. This application should be applied only at three year intervals, however, dairy fertilizer should be put around your tree at the rate of one bushel per year per tree.

We do not believe there is any question but that this tree will produce and thrive in Central and Southern Florida if these instructions are carried out. The tree should be sprayed with Oil of Emulsion at least 3 times per year and will do better if planted in at least half shade.

By J. H. Turnbull, Tampa, Fla

SEED OF HELLEBORUS

Seed of Helleborus or Christmas Rose, if sown as soon as ripe, will germinate immediately but if left for any length of time in storage, which is often the case, it is more likely to become dormant and remain so until the second spring.

It is wise to have a small seed bed, in which seeds that may require some time to germinate, can be planted. This bed can be enclosed in a frame, like a cold frame and in which you can place the desired seeding soil. The seeds can be planted in rows and if the frame is at least 2' in depth, a row will hold the average seed packet. The rows can be divided by strips of sheet metal pushed 3 inches into the soil and so that different soils can be used for different seeds, maybe sand will be required for one, peat for another and sphagnum for still another and as the seed will be allowed to remain in the bed for at least 18 months, the soil can be prepared carefully.

We will discuss the needs of different seeds in future issues and if any of our readers are having trouble with a particular seed we will be pleased to have you write us and we will do our best to help solve the difficulty.

Many are writing in for back issues; we have none and if you want all subscribe.

AQUILEGIA - ARABIS - ARDISIA

ANTIRRHINUM Continued from Page 86.

- Suntan. An old reliable orange-bronze ANTR-7T 25¢
 —Yellow Wonder. Improved strain; an extra early pure yellow ANTR-7Y 25¢
 Greenhouse Blend. This is a carefully made blend of colors ANTR-7X 25¢

FLORIST NOTE: Those wishing a larger quantity than the above may order 50¢ packets or 90¢ per one eighth ounce.

- Rock Garden Hybrids, Magic Carpet. 6" tall in every color combination ANTR-8 20¢
 —Tom Thumb. New European rock garden hybrids ANTR-8X. 20¢

TETRA SNAPDRAGONS: Spikes 1 ft long; strong, husky growth; ideal for greenhouse growing; they are very popular with commercial growers ANTR-9 35¢

APHANOSTEPHUS

Annuals or biennials having solitary flower heads with white, violet or purple ray-flowers or golden disks. Easy to grow; fine cut flowers and bloom profusely.

skirrobasia. Lazy Daisy. Pink and white with golden center, 1½ ft, HA APHN-1. 20¢

AQUILEGIA (ak-wi-LEE-ji-ah)

Columbine. One of the most valuable of hardy perennials. Its foliage is attractive and the pretty spurred flowers cannot be equalled for color. Bloom early in the summer. Sow seeds any time so long as they can be shaded from the hot sun and are established early in the fall. Seed is sometime slow to germinate and early planting is best: they do best in a shaded place in the garden.

LONG SPURRED VARIETIES:

- Blue Shades. Finest strain in shades of blue; 3 ft; HP AQU-1B 20¢
 Copper Shades. A new strain having a straw colored corella; 2½ ft; HP AQU-1C 20¢
 Dobbie's Hybrids. A choice European strain; 2½ ft; HP AQU-1D 20¢
 —Helena. A mammoth flowered blue variety; 3 ft; HP AQU-1H. 20¢
 Mac's Strain. From one of the best commercial growers; all colors AQU-1M 20¢
 Crimson Star. Brilliant; crimson sepals and spurs, white petals; HP AQU-10C 25¢
 Mrs. M. Nichol's Strain. Very choice in nice blue shades; 2½ ft; HP AQU-10N 25¢
 Mrs. Scott Elliott Strain. Beautiful; extra color combinations; HP AQU-10S 25¢
 Munstead White. A beautiful white strain; HP AQU-1T 25¢
 Rose Queen. Select strain of pretty pink shades; 3 ft; HP AQU-1Z 20¢
 —Orange and Scarlet Shades. Very choice; 3 ft; HP AQU-1G. 20¢
 Pink Shades. Choice strain in all shades; HP AQU-1P 20¢
 Snow Queen. Finest white, long spurrer, fragrant; 3 ft; HP AQU-1S 20¢
 W-F Hybrids. Unique colors in Columbine extra good; 3 ft; HP AQU-1W 20¢
 Saier's Long Spurred Blend. Made up of all the very best strains; HP AQU-1X 20¢

Columbine Species:

- alpina. Very rare RG sp; short spurred; deep blue; 1½ ft HP AQU-2 20¢
 canadensis. Yellowish or red sepals, red spurs, May-June; 2½ ft; HP AQU-11 20¢
 chrysantha. Yellow, long spurs; May-Aug; 3 ft; HP AQU-12 20¢
 clematiflora. Pale pink and blue hybrids; 1½ ft; HP AQU-14 25¢
 fiabellata. Pretty dwarf sp, pure white, early; 1 ft; HP AQU-22 25¢
 formosa. Red and yellow; RG sun or shade; 9"; HP AQU-23 25¢
 Jaeshkanii. AQU-12J 25¢
 —Silver Queen. A beautiful white strain; HP AQU-12S 25¢
 glandulosa. True alpine, powder blue and white fls; RG; 8"; HP AQU-24 25¢
 —longissima. Lovely pale yellow fls; very long spurs; 3 ft HP AQU-32. 25¢
 Hensol Harebell. A vivid deep violet blue; 1½ ft; HP AQU-26 25¢
 pyrenaica. Dwarf deep blue; 6"; HP AQU-38 25¢
 Skinneri. Crimson red with greenish yellow sepals; spurs pale red HP AQU-42 25¢
 Torkington's Double. Pretty double fls; will show few singles; 2½ ft HP AQU-46 25¢
 vulgaris erecta. Edgewise AQU-46E 20¢
 Species Blend. Made up of the species above; no long spurred sorts AQU-X 20¢

ARABIS (AR-ah-bis)

Rock Cress. Annuals, biennials, perennials with several fine RG species all easily grown; mostly low, fls in terminal spikes or racemes, blooming in early spring.

- alpina grandiflora. A large pure white strain; 9"; HP ARAB-2G. 15¢
 —nana compacta. A very dwarf free flowering white strain; HP ARAB-2C 20¢
 —rosea. Very pretty bright rose strain; silver-gray fol; 6"; HP ARAB-2Z 20¢
 Breweri. Rare dwarf shrubby sp, RG, fls deep red; 6"; Cal; HP ARAB-9 25¢
 —Frühlingszauber. Pretty carmine-rose variety from Switzerland ARAB-28F. 20¢
 pumila, Snow Cap. Profuse, white flowers; trailer, RG; 6"; HP ARAB-35S 20¢
 purpurascens. Dense cushions of neat rosettes; deep rose; HP ARAB-36 25¢
 Schneghaube. A pretty white strain; very early; HP ARAB-39 20¢
 Saier's Arabis Blend. Hand made blend of many species and varieties ARAB-X 20¢

ARALIA. (ar-RAY-lee-ah) Araliaceae.

- spinosa. Devel's Walking Stick, Hercules Club. Hardy to Mich; Lb. \$5.00 ARAL-14. 25¢
 —Moseri: see Fatsia japonica.

ARBUTUS AHR-beu-tis)

Grown outdoors in warm sections or under glass in the N; grown from seeds; best in well drained soil. They are evergreen trees or shrubs with attractive flowers.

- Unedo. Strawberry Tree. Drooping clusters white or pink 30 ft; HHP ARBU-4 20¢

ARCTOSTAPHYLOS (ark-toh-STAF-ee-los)

Bearberry, Manzanita. Evergreen shrubs and small trees mostly native of Calif. culture same as for Arbutus; not hardy in the North.

- bicolor. Flowers rose; native of Calif, 6 ft; HHP ARTO-2 20¢
 tomentosa. White or pinkish flowers; 15 ft; HHP ARTO-22 20¢
 —Uva-ursi. Prostrate and creeping; white or pinkish fls; HHP; LB \$4.00 ARTO-23. 25¢

ARCTOTIS (ahrk-TOH-tis)

S. African annuals with attractive daisy-like flower heads valuable for cut flowers; easily grown in fair soil and full sun; start seed indoors for early flowers or they may be planted in the open in May. Flowers can be cut in the bud and will open quickly if placed in the sun. They are half hardy in the North.

- acaulis. Stemless; yellow ray purplish beneath, 8"; HHA ARCT-1 20¢
 —grandis: see stoichadifolia.
 stoichadifolia. African Daisy. Pure white with blue disk, easy; 12" HHA ARCT-8 10¢
 —Large Flowered Hybrids. Shades in yellow, orange, bronze, red ARCT-8H 15¢
 Arctotis Blend. All varieties and species; HHA ARCT-X 10¢

PIONEER SEED COMPANY — DIMONDALE MICHIGAN

Saier's GARDEN MAGAZINE

DIMONDALE, MICHIGAN.

VOL. 2. No. 14. AUGUST 1951.

Published monthly by Harry E. Saier, Dimondale, Michigan; subscription price now is \$2.00 per year or two years for \$3.00.

We cannot sent out many sample copies but during the summer we have been mailing copies gratis to several thousand on the mailing list of the PIONEER SEED COMPANY and many have sent in subscriptions but if you wish the magazine EVERY MONTH it will be necessary to subscribe; the present subscription price barely covers the cost and we hope you can get \$2.00 worth of information from its columns in 12 issues.

TO GARDEN CLUBS. We have been making a special offer to garden clubs that has been well liked by every club so far. If you have some project that requires more funds, write us for our proposition.

WELL LIKED BY ALL

Each day we are in receipt of many letters all commenting upon the new form of our magazine. We would like to print some of them but we hesitate to do so because these are really personal remarks to us and too, because it is not necessary to show you how good we are! One thing we would like to have you write us about, when you do write, and that is to mention what you like to read mostly -- what subjects. And, we also invite our readers to send us in items on their experience in growing various flowers.

THE SAIER'S GARDEN MAGAZINE

has readers in practically every country and in each mail there is always a letter from some flower grower in a far off land. Last week a letter came from a soldier in Korea, who had run across our magazine and as this boy was interested in flowers and the Lilies were in bloom around him, he was interested enough to write us about them. We will print his letters in another column. We wish to thank all for their nice letters and as Mr. Billington, our pressman, says, "Let's make an improvement in every run" and he does make it. That will be our object in every issue.

We want to call your attention to the cover pictures again. These will be mostly famous gardens or an out standing flower. If you have a suitable subject let us know.

CROCUS SPECIES

Those who are interested in the species of Crocus the following notes will be of interest.

C. imperati is one of the most alluring of the wild Crocuses, a deep lilac in late February. C. susianus flowers a little later or in early March, a brilliant gold color on the landscape. C. aureus and speciosus can be planted as much as 4-6 inches deep, in good soil; other kinds 3-4 inches deep and the earlier Crocus is planted in the fall the better. Too shallow planting may heave them out during the winter and also too easy for the field mice to get to. By the way, many Tulips are lost every winter to these little fellows who consider Tulips pie and cake. Keep your beds bare until the ground has frozen so that they will not decide to move into the bulb beds in the autumn.

A detailed index will be furnished soon which will give you a quick reference to all articles by subject and common names.

ARENARIA - ARMERIA - ARUM

ARDISIA (ahr-DIZ-i-ah)

A large genus of tropical ornamental evergreens for the greenhouse. They make nice pot plants; seed germinates readily.

- crispa*. White fls; grown as a pot plant for its coral red br; TSh..... ARDS-1. 25¢
- japonica*. White fls red berries; Japan; 1½ ft; TSh; Lb. \$5.25..... ARDS-2. 25¢
- macrocarpa*. Tender sh. red fls in cymes..... ARDS-4. 30¢

ARENARIA (ar-e-NAY-ri-ah)

Sandwort. Low growing annuals and perennials usually in low mats; RG..... They are excellent for carpet bedding; do best in sand soil.

- laricifolia*. Large white fls, extra RG, 8", HP..... AREN-23 20¢
- lithophila*. Extra good white fls, April-May; 1 ft; HP..... AREN-27 20¢
- montana*. Charming sp; pure white, free bloomer, trailer; HP..... AREN-29 25¢
- Arenaria Blend*. All kinds mixed..... AREN-X 15¢

ARGEMONE (ahr-je-MOH-ne)

Prickly Poppy. Grown as annuals in the flower garden, thriving in any good soil in a sunny place. Large poppy-like fls; 2-4 ft tall; the plants make fine hedges; April.

- grandiflora alba*. White fls, foliage marbled white, 3 ft; HHA..... ARGE-2 15¢
- hybrids mixed*. A French strain of fine hybrids..... ARGE-2F. 15¢
- platyceras rosea*. Blooms for months, bluish rose-crimson; 4 ft; HHA..... ARGE-4 25¢
- platyceras v. hispida*..... ARGE-4H. 20¢
- Argemone Blend*..... ARGE-X 15¢

ARISAEMA. (ar-RISS-seem-ah) Araceae.

Mostly tuberous rooted plants, suitable for moist shady places. They are not hardy in the North but can be grown as pot plants.

- amurense*. Seed from S. Rhodesia..... ARIS-1. 25¢

ARISTEA (ah-RIS-te-ah)

S. African plants tender in the North but grown in the open in Calif. Leaves are in basal rosettes fls blue in spikes. Grown in the GH in the North.

- Ecklonii*. Bright blue fls, 2-3" across; 1 ft; TP..... ARIT-3 25¢

ARISTOLOCHIA (ar-is-toh-LOH-ki-ah)

Dutchpipe Vine Mostly perennial climbers with odd shaped leaves. Some are grown in the GH. Easily grown from seed.

- elegans*. Purple-brown fls., white markings GH climber, hardy S of D.C. ARST-5 25¢

ARMERIA (ahr-MEER-ee-ah) Thrift, Sea-pink

Statice, Thrift, Sea-pink. Dwarf perennials making excellent border and RG plants best in a sunny position and well drained. The genus has been reclassified of late.

- formosa hybrids*. Large fls in many colors; 18"; HP..... ARME-6H. 15¢
- Great Pink*. Clear rose-pink, 2" ac; 1½ ft; HP..... ARGE-6G. 15¢
- Six Hills Hybrids*. A very pretty English strain..... ARME-6S. 25¢
- juniperifolia*. Hardy RG alpine; 2" tall; white to deep pink, HP..... ARME-10. 25¢
- maritima*. White to deep rose; 1 ft; HP..... ARME-14. 15¢
- alpina*. White fls 1" ac; 8 inches high; HP..... ARGE-14A. 15¢
- tomentosa*. Climber to 30 ft; native N. C.-Fla; HCl; Lb. \$3.25..... ARST-19. 25¢
- Welwitschii v. stenophylla*. Tufted sh pink flower heads 1 ft; HHP..... ARME-22 25¢
- Armeria Blend*. All kinds mixed; will make fine flowers for drying.... ARME-X. 15¢

ARNICA (AR-ni-ka)

Perennial plants with clustered basal lvs. and bright yellow fls on long spikes. Effective in colonies in the wild garden growing rapidly in acid soil.

- cordifolia*. Hardy; heads, ray fls; 15"; HP..... ARNI-6. 20¢
- montana*. Mountain Tobacco. Large heads yel. ray fls; 2 ft; HP..... ARNI-11. 15¢

ARTEMISIA (ahr-tee-MIZ-e-ah)

Wormwood. Hardy aromatic plants. The fl is in heads and composed entirely of tubular disk fls. Grown mainly for their aromatic and medicinal properties; thrive in poor soils. Flower in late summer and make nice plants in the back border.

- caucasica*..... ARTE-15. 25¢
- sacrorum v. viridis*. Summer Fire. Erect; yellowish; 3-5 ft; HA..... ARTE-40V. 20¢
- vulgaris*. Erect yellowish fl heads; free; fragrant; 3½ ft, HP..... ARTE-50 20¢

ARTHROPODIUM (ahr-throh-POH-di-um)

Tufted perennials of Lily Family grown in GH in N; lvs grass-like, fls in clusters. *cirrhaleum*. 3 ft stems carrying hundreds small white fls; cuts (5-6) HHP ARTH-2 25¢

ARAUJIA. (ar-RAW-jee-uh) Asclepeadaceae.

Woody climbers with salver or bell-like flowers. They are tender plants and grown under glass in the North. Plant seed in early spring over some heat.

- Sericofera*. White or pinkish fls, 1" ac; native of S. Brazil..... ARAU-1. 25¢

ARUM (AY-rum)

Require rich soil, plenty of water and a shady place; some are pot plants in GH and others are hardy. If undisturbed they will form better flowers; tuberous rooted.

- italicum*. Creamy white fls in sp; pretty evergreen fol in S; 1 ft; HHP..... ARUM-1. 20¢
- pictum*. Spathe with green tube and purple limb..... ARUM-6. 20¢

ASCLEPIAS (as-KLEE-pi-as)

Silkweed. Attractive habit and showy flowers; they make nice plants in the border. They are easily grown from seed started same as most perennials.

- curassavica*..... Blood Flower. Reddish purple corolla, or. hoods; 3 ft; TA..... ASCL-3 20¢
- tyriaca*. Green or purplish fls; July-Aug 5 ft HP..... ASCL-14 20¢
- tuberosa*. Orange flowers, July-August, 2-3 ft., HP..... ASCL-15. 15¢

ASPARAGUS (ass-PAR-ah-gus)

The decorative species are easily grown but are tender plants in the N. Those listed below are grown for their green foliage.

- asparagoides*. Smilax of the GH. Berries dark purple..... ASPG-4. 25¢
- plumosus*. The tall climber for GH; fine foliage for cutting; TP..... ASPG-16. 25¢
- racemosa*. Tall cl; handsome foliage; dense sprays fls..... ASPG-17. 25¢
- scandens v. deflexus*. Small form, deflected branches; white; 4 ft; TP..... ASPG-18. 25¢
- Sprengeri*. Climbing fern to 6 ft; popular GH plant for greens..... ASPG-20. 25¢

ASPERULA (as-PER-eu-lah)

Used mainly in the RG or for carpeting shady places, growing best in moist spots. Easily grown; the leaves are in whorls and the flowers small lily-shaped, in white, blue or pink. Woodruff.

- orientalis*. Pretty blue fls effective in carpeting; ft; HP..... ASPR-13. 15¢
- tinctoria*. Procumbent, white fls, red outside; 1 ft; HP..... ASPR-15. 15¢

PIONEER SEED COMPANY — DIMONDALE MICHIGAN

Vesicaria utriculata or Bladder Pod

Bladder pod, grows a little shrubby at its base and in California, to six feet high.

The leaf formation is similar to the white locust, but small in comparison (½ x ¼ inch). The flower is a pea-type, 3/8" to 1/2" in size. Color a nice clean yellow. Each petal having little brown dashes radiating from their attachment to the flower.

The branches bearing these flowers are about 24" to 30" long, each bearing 15 to 20 blossoms. These are formed on 4" twigs bearing 3 to 6 inflated pods, at maturity. The pods are inflated, the size being about 2¼" long. Maximum diameter about ¾". The inflation procedure commences when the pod is about ¾" long. During their greenness the children like to hear the explosion, following a thumb and finger squeeze. Adult kids too, get a grin from hearing the noise.

The early growth makes the pods, while the new growth makes the flowers—simultaneously. The entire plant is a pretty growth, a light green, of open structure, either alone, or along with other foliage. New growth commences after ripening of the seed. The pods will hang on fully formed (brownish yellow) until the rains and winds deteriorate the pods. The plant is hardy, here; having endured 28 degrees Fah. in our Los Angeles winters. This is rather cool for a plant coming from the Mediterranean regions. The anatomy is similar to the Cottonwood trees. It does well with a little water, or a plenty, in this brown clay soil.

By J. C. Green, Los Angeles, Calif.

NOTE: We might add to Mr. Green's excellent description the question as to how far north this interesting plant can be grown. It is found in central Europe and should be hardy above the Ohio River Valley but if readers will report plants in this section we will be glad to publish the results. The other species, *V. graeca* has orange-yellow flowers and is native of Southern Europe and, therefore not as hardy. Who has plants of this species?

IRIS IN ALASKA

Continued from Page 81

regardless of the weather. We have spent a small fortune on the lovely Bearded rhizomatous type from the States only to lose them through rotting whenever we have a wet, open winter.

I have had fairly good results with the dwarf varieties set in the rockery and last year the Dutch bulbous Iris, did very well but did not put in an appearance this year.

This spring we added some Shilka Iris which have made a fine growth but have yet to bloom. Our cold, wet springs seem to do the most damage to plants.

By Alice M. Given, Alaska

NOTE: We suggest that you try growing some of your plants that have failed to stand the wet spring, on raised beds; we have been doing this more each year ourselves and it saves a lot of work in protecting plants from winter damage. These beds probably should be 8 inches above the surrounding ground and a well made drain made to carry off the rain immediately.

In the case of many dry region flowers, it is quite common for growers to cover these plants with "glass roof" by erecting a wire holder on which panes of glass are fastened. We have for some time intended of

Continued on Page 93

ASTERS - ASPHODELINE

ASPHODELINE (ass-pho-de-LIN-ee) Jacob's..Rod.

Differs from Asphodelus only in the flower stems being leafless and the foliage clustered at the base; culture.

lutens. King's Spear. Frag. yellow fls in racemes; part shade; 2-4 ft; HP.....**ASPD-4.** 20¢

ASPHODELUS (AS-foh-del-us)

Easy culture in the border or wild garden in rich sandy loam. Flowers lily-like.

—**Species from the Pyrenees.****ASPH-3.** 30¢

ASTERS

Sow seeds indoors 6 weeks before time to set out in their beds which is after danger of frost has passed. Do not crowd, usually a foot apart, and use care that do not suffer a set back thru over watering, crowding or drought. It is best to transplant seedlings once. As the roots of Asters are shallow, use care in cultivating. Make succession plantings for continuous bloom, but when possible use different types which flower at different times. All strains are wilt resistant unless so noted.

AMERICAN or VICK'S BRANCHING:

Plants 2-2½ ft tall, branching, robust, flowers double, semi-ball shaped, late Aug.

—**White, 1W; Crimson, 1C; Lavender, 1L; separate colors.**.....**AST-1.** 15¢

Blend of American Branching. A careful hand made blend.....**AST-1X** 10¢

CREGO:

Plants robust, branching, 2-2½ ft fls large, double, blooms mid-Aug; all purpose type.

—**Enchantress (WR).** Lively salmon rose, NEW.....**AST-2E** 15¢

—**Light Blue (WR).** Fine color for cut flowers.....**AST-2B** 15¢

—**Peach Blossom (WR).** Delicate pink, excellent for cutting.....**AST-2P** 15¢

—**Crego Blend (WR).** Just the right blend for cut flowers.....**AST-2X** 15¢

EARLY BEAUTY:

Planted at the same time, they will flower with the Cregos and American Branching or in early Sept till frost; plants 2½-3 ft, large well formed flowers of excellent keeping qualities; wilt resistant.

—**Azure Fairy.** Just the right shade of light blue.....**AST-3A** 15¢

—**Crimson.** A deep rich cut flower shade: excellent for cutting.....**AST-3C** 15¢

—**Deep Rose.** Makes a rich shade in rose-pink.....**AST-3Z** 15¢

—**White.** All planting should contain plenty of white.....**AST-3W** 15¢

—**Early Beauty Blend.** A blend for the right cutting colors.....**AST-3X** 15¢

GIANTS OF CALIFORNIA:

Non-resistant strain. The flowers are of the Crego type, curled and twisted making a fine cut flower sort; stems stiff and non-branching, 3 ft tall, blooming late summer.

—**Azure Blue.** Rich cut flower shade.....**AST-4B** 15¢

—**Crimson.** Rich color strain.....**AST-4C.** 15¢

—**Loveliness.** A rich pure pink touched with salmon.....**AST-4L** 15¢

—**Peach Blossom.** Opens white, flushed lavender-pink.....**AST-4P** 15¢

—**White.** Pure white of excellent form.....**AST-4W** 15¢

—**Giants of California Blend.** A cut flower blend in right proportion.....**AST-4X** 15¢

GIANT COMET:

Plants upright' 2 ft, non-branching, flowers feathery, double, in bloom middle of Aug.

A fine type for cut flowers, wilt resistant.

—**Rose.****AST-5Z.** 15¢

—**Salmon Queen.** Dandy soft color for cutflowers.....**AST-5S.** 15¢

—**Giant Comet Blend.** A blend for cut flowers.....**AST-5X.** 15¢

KING or NEEDLE TYPE:

—**Blend of Colors.**.....**AST-9X.** 20¢

OSTRICH FEATHER:

Plants 2-2½ ft branching, blooming in mid-August. Flowers feathery, double, and a all purpose flower; wilt resistat.

—**Bright Rose.****AST-6Z.** 15¢

—**Crimson.****AST-6C.** 15¢

—**Malmaison Pink.****AST-6P.** 15¢

—**Pure White.****AST-6W.** 15¢

—**Blend.** A hand made blend for cut flowers.....**AST-6X.** 15¢

POM POM TYPE:

Small flowered type; incurved petals; showy cutflower for small bouquets or edging.

—**Rose****AST-11Z.** 20¢

—**Crimson.****AST-11C.** 20¢

—**Blend of Colors.**.....**AST-11X.** 20¢

PRINCESS:

Attractive new cutting type; 2-2½ ft tall branching, early, 3-3½ inch flowers on strong stems and with full deep crested centers surrounded by several rows of dainty plume-like petals. Wilt resistant.

—**Barbara.** New orchid color, very attractive.....**AST-7B.** 15¢

—**Bonnie.** Soft salmon-rose.....**AST-7N.** 15¢

—**Elizabeth.** Pure white making a beautiful cut flower.....**AST-7E.** 15¢

—**Linda.** Clear rose beautiful for cut flowers, NEW.....**AST-7L.** 15¢

—**Margaret.** NEW. Very pretty deep rose.....**AES-7M.** 15¢

—**Susan.** NEW. True deep blue, in a clear shade.....**AST-7S.** 15¢

—**Princess Blend.** A blend of above varieties; a beautiful addition.....**AST-7X.** 15¢

QUEEN OF THE MARKET:

A very popular early flowering Aster, branching, 20 inch tall, blooming in early August, one of the most popular for early cut flowers. Wilt resistant.

—**Balef Queen.** Fasinating salmon-rose, extremely w it resistant.....**AST-8Q.** 15¢

—**Crimson.****AST-8C.** 15¢

—**Pure White.****AST8W.** 15¢

—**Salmon-rose.****AST-8Z.** 15¢

—**Queen of the Market Blend.**.....**AST-8X.** 15¢

SUPER GIANTS OF CALIFORNIA:

This is the largest and most fully double Aster class yet developed; flowers 6-8 inches across, graceful, interlacing petals. Plants 2½ ft tall; 6-8 non-lateral stems per plant.

—**El Monte.** A clear deep crimson.....**AST-10C.** 20¢

—**Los Angeles.** A beautiful shell pink making it a fine cut flower.....**AST-10L.** 20¢

ROSANNA.**AST-11R.** 25¢

A new Aster, excellent for pot culture, well proportioned, 10-12" high with strong stems having a bunch of several half double flowers in bright carmine-red with a yellow center; potting can be done without fading, whole plant starting to flower same time.

ASTERS: Continued on Page 90.

PIONEER SEED COMPANY

DIMONDALE MICHIGAN

From Hawaii to Arabia

I read in your June issue that Mrs. Heyser desires information regarding what plants her son in Saudi Arabia should cultivate.

I do not know the climate of Saudi Arabia but think it is similar to Canton Island in the Pacific Ocean near the Equator where I recently spent some time in botanical work.

There the sunshine is intense, the average annual rainfall 19 inches, and the soil alkaline sand and rock with a goodly dose of sea salt.

It is my belief that Mr. Heyser would have good luck in Arabia growing Gaillardia picta, the Moonflower Calonyction tuba or related species, Tamarix aphylla, Thevetia peruviana, Plumeria, Nerium oleander, Noronhia emarginata, Casuarina equisetifolia, Scaevola frutescens, Vitex trifolia variety simplicifolia, Coccobolus uvifera, Mirabilis jalapa, Bougainvillea, Calotropis, Poinsiana pulcherrima. Sida fallax, Antigonon leptopus, Poinsettia, many kinds of Portulaca, Rhoea discolor, Furcroya and Agave and several kinds of Sansevierias.

Many of these, with a little judicious watering, should thrive even in the open ground and would not need planting in Mr. Heyser's discarded acid carboys.

But why not become a pioneer and comb the Arabian dunes and hills for native plants of horticultural promise. That, to me, (me too; H. E. S.), would be fascinating. Then, also, by such a plan the possible danger of introducing foreign plants that might escape to become dangerous weeds in Arabia would be avoided."

By Otto Degener, Hawaii.

NOTE: Mr. Degener was the Naturalist, Hawaii National Park, in 1929 and the author of PLANTS OF HAWAII NATIONAL PARK.

Ofcourse, while Mr. Degener suggests a great many plants that might be grown in Saudi Arabia by Mr Heyser, he does not do so, thinking all these will be attempted, but the list brings up the point we have so often raised and which our magazine tries to solve and that is: Where am I going to get it now. So many articles tell of the wonderful points of some flower which is actually out of circulation so far as the reader is concerned. Many of the flowers suggested above are in the seed lists and the others we would be interested to know of readers growing them.

WAY DOWN IN FLORIDA

We receive many letters that we simply do not have the help to answer, letters that are not expected to be answered by the writer, and the following is one of them, however we are going to quote part of this.

It is from Mrs. Maud Conner, of Hunter's Lake, Florida.

"I surely am thankful for the June copy of your magazine. I am a cripple and live alone and make distinctive pine needle baskets, a way out in the country, 10 miles from the post office and a young son, a veteran, lives near and brings me my meals and helps in my house work.

I want some roomers this winter, elderly people, no children, and I have 3 rooms to rent. A lovely wild lake is near and is well stocked with fish."

A REQUEST

If you have a friend or relative stationed in some foreign land and who is interested in flowers, we would be pleased to have you send their address that we may send them a sample copy of the magazine.

ASTILBE - AUBRIETIA - BAERIA

ASTERS: Continued from Page 89.

- Heart of France. Late branching, flaming red.....AST-HF. 20¢
 —Nero. Semi double branching, red.....AST-N. 15¢
 Single Flowering VIVID. Red.....AST-12V. 20¢

PERENNIAL SPECIES OF ASTERS:

- alpinus albus. RG, white form, daisy-like fls on 6" plants, HP.....AST-14A. 20¢
 —Large Flowered. Large fls on 9" plants in various colors; HP.....AST-14L. 20¢
 —superbus. Larger than the type and showy; HP.....AST-14S. 20¢
 —caucasicus. 1½" heads, purple ray, 2 ft; HP.....AST-20. 20¢
 —commutis crassulus. Small flowered white, Mont; Aug., 2 ft; HP.....AST-23. 20¢
 —conspicuus. Profuse, 1" pure rose fls, 18 inch; HP.....AST-25. 20¢
 —Farreri. Narrow violet ray petals, vermilion-orange disk; nice 1 ft; HP.....AST-40. 25¢
 —himalaicus. Heads 1½" across; lilac-blue ray fls; 1½ ft; HP.....AST-57. 30¢
 —sikkimensis. Indian species.....AST-108. 30¢
 —subcaeruleus. Very large lilac-blue fls; very good, 9"; HP.....AST-110. 25¢
 —Star of the Wartburg. Bright lavender-blue, prominent yellow center AST-110W. 25¢
 Perennial Aster Blend. All hardy perennials.....AST-PX. 20¢

The list of Asters will be very much enlarged in the next time around and all the new and best strains and types will be included.....If you use Aster seed by pound write.

ASTILBE (a-STIL-be)

The florist Spirea. Easily forced in the greenhouse. Easily grown from spring sown seed; use soil containing sand, peat and leaf mold. Thrives in moist soil and part shade. *rivularis*. Yellowish white fls i large panicles; 5 ft; HHP.....ASTI-10. 20¢
chinensis pumila. Dwarf form, white fls; 2 ft; HP.....ASTI-4. 20¢

ASTRAGALUS (as-TRAG-ah-lus)

Milk Vetch. Deeply cut leaves and purple, yellow or white flowers in spikes or racemes thrives in light sandy soil and used in the rock garden or border; easily grown from seed planted in the spring.
Purshii. Mat-forming, white woolly lvs; fls white or blue; sun, RG, HP.....ASTR-30. 20¢

ASTRANTIA (as-TRAN-shi-ah)

The flowers are in odd and attractive umbels and make interesting plants in the border, especially in moist places. Seed from all varieties does not come 100% true.
 —bavarica.....ASTN-3. 25¢

ASTROCHLAENA.

—malvacea. From South Rhodesia.....ASTO-1. 25¢

ATROPA. (A-thro-pa) BELLADONNA. Solanaceae.

One species important as a drug and the source for atropine. It is poisonous and not a subject for the flower garden.
 —Belladonna. Shining black berries; 3 ft; HP (POISONOUS).....ATRO-1. 25¢

AUBRIETA (au-BREE-shi-ah)

Choice mat forming perennials prized for their abundant flowers in the spring. They are favorites in the rock garden and closely allied to and resemble Arabis. Easily grown from seed, started any time, for flowering the following season. They are especially good between rocks and like a little shade.

- Campbelli. Ageratum blue.....AUBR-2C. 20¢
 —deltoidea. The species of which all the popular garden varieties belong.....AUBR-2. 15¢
 —Eyre. Very beautiful blue; HP.....AUBR-2E. 25¢
 —graeca. Large and more bushy than type; HP.....AUBR-2G. 25¢
 —hybrida. Large flowered types from crosses; HP.....AUBR-4. 25¢
 —Glorious Regal Hybrids.....AUBR-3G. 20¢
 —Hendersonii.....AUBR-2H. 20¢
 —Leichtlinii. Deep purple-rose; HP.....AUBR-2L. 25¢
 —Whitewall Gem. Pretty violet flowers; HP.....AUBR-2W. 20¢
 —Violacea. Improved form, pure violet flowers.....AUBR-2V. 20¢
 —Aubrietia Blend. Many varieties mixed; HP.....AUBR-X. 20¢

AUCUBA (AU-keu-bah)

- japonica. Tree to 15 ft; scarlet fr; hardy to Ohio River.....ACUB-6. 25¢
 —aurco maculata.....ACUB-6A. 25¢

AVENA (ah-VEN-ah) Ornamental Oats.

Mostly annual grasses with loose panicles, seed sown early in the spring or in the fall in the South. They are used mainly as ornamental grasses and can be dried.

- sterilis. 3 ft; awns 2 inches or more; HA.....AVEN-6. 15¢

AZALIA: See under Rhododendron, to which it belongs.

BABIANA. (bab-ee-AY-nuh) Iridaceae.

Low cormous plants from S. Africa with red, pink, yellow and lilac flowers. Grown in the open in the South or they can be grown in pots in the greenhouse.
 —hypoena. South Rhodesian species.....BABI-4. 25¢

BAERIA (BEHR-ee-ah) Goldfields

Small annuals of Calif., 1 ft. high with many heads of small yellow daisy-like flowers. Bloom in late spring and summer; easy; used for edging or for everlasting.

- chrysostoma. (aristata). 10 in. high; heads ½ inch across, HA.....BAER-1. 20¢

BALLOON VINE: see *Cardiospermum Halicacorum*.

BARLERIA (bar-LEER-ee-ah)

Tropical plants grown in the greenhouse in the N or out doors in the far S.
 —lupulina. Thorny sh; long gr. lvs. with red mid rib; fls yel; GH.....BALR-3. 25¢

BAUHINIA boh-HIN-ee-ah)

Tropical plants of Pea Family. In the South they make a fine showing with their colorful racemes of white, purple and yellow flowers. Tender perennials.

- acuminata. Sh to 6 ft; handle as TA in N; fls white; good pot pl.....BAUH-2. 20¢
 —Bauhinia Mixture.....For those who wish to try them all.....BAUH-X. 20¢

BEANS, Ornamental

- Scarlet Runner. Climber with scarlet fls; ornamental vine; 10 ft.....BEAN-1. 15¢

PIONEER SEED COMPANY — DIMONDALE MICHIGAN

The Children's Favorite

To all children the best of all plants is the Virginian Stocks, *Malcomia maritima*. It comes up in 3-4 days, thus meeting the first point of interest to a small youngster; it then grows quickly and is in bloom in 3-4 weeks.

Another interesting plant for older children, is the Gourds. For the younger try the small fruited sorts and for the older ones, who may want to work them up into various forms, the large fruited sorts are best or the two types can be mixed. Try growing the small ones on a fence where they will form perfect specimens.

Another interesting plant for children and especially if they have an opportunity to put their work on display at a fair, is the pumpkin. The best is the mammoth sized varieties. Two or three seeds can be planted in a berry box which has been filled with rich loam and the bottom of the box filled with an inch of soil which contains well rotted manure.

Start 2 or 3 boxes about April 1st so that they can be set out, box and all, the last week in May or at the proper time so that any late frosts will not get them for Pumpkins will be killed by the lightest frost. After the plants have started to grow pinch off all but the strongest, then keep a mulch around the plant and start to give it liquid manure once a week at the start but not too much until it has flowered and started to make fruit and when it get 3-4 inches across, increase the liquid manure giving it 2-3 times a week. The main point at this time is to select one fruit for growing and then pinch off all the rest as well as the terminal leaves on the runners, so that all the food will go to the one fruit. Fruits of enormous size can be thus grown. Four or five different plants will eliminate the possibility of a complete loss if something goes wrong with one plant.

SOW FRESH SEEDS

The following will give you a better germination if fresh seeds are planted; those who have better experience can get a germination later but if you intend planting these try placing your order in advance and note on your order to send when the new crop arrives.

All Primulas; *Gentiana verna*; all Asiatic Gentians; Androsaces; All Cyclamen; *Phyteuma comosum*; *Campanula lasiocarpa*; *Viola bosinaca* and *Viola aetolica saxatilis*.

Ofcourse there are many others but these belong mainly to the rockery plants.

CATNIP FOR THE CAT!

If you will dig up a year old crown of Catnip in the fall, pot it in a 5 or 6 in. pot, according to its size, prune back all the old stems and leaves, you will find that it will recover quickly and furnish succulent leafy tips which pussy can nibble on all winter.

APHIDS

Potted specimens of *Pinguicula lutea* or Butterwort, a carnivorous plant,, native of North America, was found to be so attractive to aphids in a small greenhouse as to eliminate them as pests on the plants in the same house.

The leaves on these plants are covered with pin-head glands, almost beaded in appearance. These secret globules of a stiff mucilaginous fluid which serves to trap the plant victims.

Other plant traps are Venus Flytraps (*Dionaea*); Pitcher Plants (*Sarracenia*); and Sundews (*Drosera*).

GREENHOUSE BEGONIAS

BALSAM, GARDEN: See *Impatiens balsamina*.

BALSAMORHIZA (Bol-sam-or-RYE-zuh) Balsam Root

An American genus having Sunflower-like flowers. The roots are large and resinous. They are nice plants in the wild garden.

—*sagittata*. Leaves like shields; 1½-2 ft tall; April, HP..... **BALS-5. 15¢**

BAPTISTA (bap-TEZ-ee-ah) False or Wild Indigo

Sturdy perennials growing to 6 ft. The foliage is deep green and attractive in the border; the flowers resemble Lupines in form and come in all shades of blue, white and yellow. Late in the fall the seed pods turn black and are thus rather showy. Seed can be planted where the plants are to grow; easily grown; a rich soil best; hardy perennials.

—*australis*. Deep blue flowers; 3-4 ft; June-July; tallest species..... **BAPT-2. 15¢**

—*hybrids*. These come in varying shades of blue..... **BAPT-2H. 15¢**

BEGONIAS

This is a very large and varied group. Those that are popular pot plants in the greenhouse are mainly under *B. semperflorens* and grown for their flowers. About all of are very popular pot plants, both for flowers and foliage. All can be easily grown from seed as well as from leaf cuttings. The seed is very small and care must be given in handling them. Divided into 3 groups: fibrous rooted, tuberous rooted and rhizomatous.

SEMPERFLORENS: A dwarf compact grower; almost an everblooming plant and very popular both for bedding and for greenhouse pot plants. They come in many highly improved varieties and many beautiful colors. All grown as annuals.

—*Bedding Queen*. A dainty shade of rose; bronze foliage..... **BEG-2B. 40¢**

—*Christmas Cheer*. Attractive red..... **BEG-2C. 40¢**

—*Compacta*. Compact strain in many colors; a German strain..... **BEG-2CP. 40¢**

—*Erfordia*. A beautiful rosy carmine..... **BEG-2E. 40¢**

—*Glow*. Improved Fire Sea...Brilliant scarlet; dark foliage..... **BEG-2G. 40¢**

—*Gustav Knaake*. A strong grower; fiery crimson..... **BEG-2GK. 40¢**

—*Ile de France*. Pure white with yellow stamens; light green foliage..... **BEG-2F. 40¢**

—*King of the Blacks*. Dwarf, bright scarlet flowers; bronze foliage..... **BEG-2R. 40¢**

—*Prima Donna*. Limped rose shading carmine at center; everblooming..... **BEG-2PD. 40¢**

—*Salmon Queen*. A popular variety; salmon-red and dark foliage..... **BEG-2Q. 40¢**

—*White Beauty*. Pure white, light glossy green foliage..... **BEG-2W. 40¢**

—*Blend of the above listed varieties*..... **BEG-2X. 40¢**

SEMPERFLORENS GRACILIS: Compact and dwarf plants especially suited for GH.

—*Adeline*. Beautiful rose-pink; green foliage..... **BEG-3A. 40¢**

—*Indian Maid*. Bright scarlet; dark bronzy foliage..... **BEG-3M. 40¢**

—*Luminose*. A dandy scarlet-red and dark foliage..... **BEG-3L. 40¢**

—*Red Pearl*. One of the prettiest reds..... **BEG-3R. 40¢**

—*Rose Pearl*. Beautiful soft rose..... **BEG-3Z. 40¢**

—*Blend of above varieties*..... **BEG-3X. 40¢**

BEGONIA SPECIES:

—*Andean species*. Collected Begonias from Columbia..... **BEG-6. 30¢**

—*Andersonij*. Fls in an umbel at apex of tall spike..... **BEG-9. 30¢**

—*coccinea*. Fibrous rooted; large wax like coral red fls; Columbia..... **BEG-22. 50¢**

—*Evasiana*. Tuberous; 2 ft; stands some frost; fls flesh color..... **BEG-43. 40¢**

—*ferruginea*. Collected in Columbia..... **BEG-47. 30¢**

—*foliosa*. Fibrous; 1½ ft; fls white tinged rose; good basket type..... **BEG-48. 40¢**

—*gigantea*. Flowers small white or pale pink; good for pots or bedding..... **BEG-54. 30¢**

—*REX type*. Many foliage variations; popular foliage pot plant..... **BEG-117. 50¢**

—*Begonia Blend*. Contains all Begonias listed..... **BEG-X. 40¢**

—*tuberous rooted*. Beautiful strain of basket type; very good..... **BEG-158E. 50¢**

—*tuberous, Mixed*. A really high class strain in best colors and form.... **BEG-158EX. 50¢**

BELAMCANDA (bel-am-KAN-dah) Iridaceae

Iris-like perennials with stout root stalk, grown for their flowers and blackberry-like fruits which can be made up into pretty dried material. Easily grown in sun; sandy soil.

—*chinensis*. Blackberry lily; 4 ft; orange spotted red fls; HP..... **BEAL-1. 20¢**

—**ROOTS or DIVISIONS:** Mailed during September only 25¢ each; 6 for \$1.00 Postpaid

BELLIS (BELL-iss)

Herbaceous annuals or perennials. They need a fertile moist soil with plenty of sun. Seed planted in the fall and wintered over in the cold frame will flower in the spring or seed can be started indoors with same result. They grow 6-8 inches tall and make very attractive bedding or edging plants; cool weather plants; try with Pansies or Myosotis.

CHEVREUSE: Large flowering French strain.

—*White*..... **BELL-5W. 20¢**

—*Rose*..... **BELL-5Z. 20¢**

—*Crimson*..... **BELL-5C. 20¢**

—*Mixed*..... **BELL-5X. 20¢**

MINIATURE TYPE: Small flowered type very dainty for edging; HB.

—*Rose*..... **BELL-7Z. 20¢**

—*White*..... **BELL-7W. 20¢**

—*Miniature Mixed*..... **BELL-7X. 20¢**

MONSTROSA: Giant flowered type, strong growers; fine for bedding.

—*Red Beauty*. Double red flowers..... **BELL-4R. 20¢**

—*Rose Beauty*. Pretty double rose flowers..... **BELL-4Z. 20¢**

—*White Beauty*. Double pure white..... **BELL-4W. 20¢**

—*Monstrosa Blend*. In red, pink, rose and white..... **BELL-4X. 15¢**

MONSTROSA TUBULOSA: Flowers with pretty quilled petals; the flowers double.

—*Bernina*. White changing to pink; double..... **BELL-6B. 20¢**

—*Etna*. Double dark red..... **BELL-6E. 20¢**

—*Lutea*. Double rich yellow flowers..... **BELL-6L. 20¢**

—*Tiflis*. Double carmine-rose..... **BELL-6T. 20¢**

—*Tubulosa Blend*. Made up of the above varieties..... **BELL-6X. 20¢**

PERENNIS: True or English Daisy; 6"; HP; popular spring plants

—*Longfellow*. An extra double bright red strain..... **BELL-3L. 15¢**

—*Rose*. Same in a odd rose..... **BELL-3LZ. 15¢**

—*Vesuvius*. Extra double ruby-red..... **BELL-3V. 15¢**

—*Rosea*. White with delicate rose center..... **BELL-3Z. 15¢**

—*Snowball*. Pure white; double flowers..... **BELL-3W. 15¢**

—*Perennis Blend*. Above varieties..... **BELL-3X. 15¢**

—*Bellis Daisies Mixed*. All kinds and types..... **BELL-X. 15¢**

PIONEER SEED COMPANY — DIMONDALE MICHIGAN

Hardy Garden Ferns

Too few hardy ferns are found in borders and as there are many suitable places in the usual border they should be given some attention. They are very attractive and easily grown in any shady, moist corner or better grown in any shady, moist corner or better near wall, rock gardens, shady banks and moist woodlands make ideal homes for any hardy fern. Moisture and acid, peaty soil in places protected from the winds are their main requirements. The following species will be found to be the most satisfactory under outdoor cultivation.

Adiantum pedatum, American Maidenhair Fern. The fronds are a delicate green on black stems; it is one of the best of our native ferns; grows 1 foot high.

Asplenium platyneuron or Ebony Spleenwort. This is especially suited for a moist shady place in the rockery; it is about 1 foot high.

Asplenium trichomanes, Maidenhair Spleenwort. Another good rockery fern, 3-6 inches high with narrow fronds.

Cystopteris fragilis or Fragile Bladder Fern. For moist rocks in rockery; but 6-8 inches high with divided fronds.

Dryopteris cristata or Crested Wood Fern. Best in wet places; 1 foot high.

Osmunda cinnamomea. A beautiful plant, 2-3 feet high when grown in a suitable location, a rich wet soil with light shade. The ends of the fronds are the color of cinnamon bark.

Polypodium vulgare or Common Polypody Fern. One of the best species for the rockery; almost evergreen, 4-10 inches high.

Polystichum acrostichoides, The Christmas Fern. Evergreen with deep green divided fronds. Plant it in a shady bank on the north side of a wall in medium moist soil.

Woodsia ilvensis or Rusty Woodsia. It grows 6 inches high; moist shady soil.

Woodsia obtusa or Common Woodsia. Moist rockery; 6-12 inches high.

SALAD BURNET

The young leaves have the delicate flavor of the Cucumber. It is a perennial of the mediate but if left for any length of time in light sandy soil in the early spring or better in the late fall when they will germinate the first thing in the spring.

It is a deep rooted plant and very hardy. If the plant is allowed to flower it loses its delicate flavor. It is one of the best herbs for the salad bowl.

ANCHUSA AND VERONICA

It has been suggested to plant *Anchusa italica* with the white form of *Veronica virginica* for an exciting garden picture. Have any of our readers planted these two plants besides each other?

RAMONDAS HABERLEAS

This is about the only alpine plant that can be increased by leaf cuttings. In taking the cuttings be sure to secure the incipient bud at the junction of the petiole with the stem.

To be sure, give a sharp pull sideways and the leaf stalk will contain the bud. Plunge the stem in the propagating bed to a fourth of the leaf.

Other alpine plants that can be increased by cuttings are *Morisia monanthos* (hypogaea), *Primula denticulata* and the rare *Yellena candida*. It is said to let the roots grow thru the bottom of the pot, cut it off and pot up.

Barnholtz Greenhouses of Eugene, Ore., writes the Pepper seed they got from us was good and they are well satisfied.

BIDENS - BRACHYCOME - BRISA

Sow seed in the fall when they will germinate in the spring.

- Thunbergii**. Well known Japanese Barberry; clean seed \$5.00 lb. **BERB-84. 25¢**
 —**Thunbergii atropurpurea**. Lvs dark scarlet-red; clean seed \$5.00 lb. **BERB-84A. 25¢**
 —**pluriflora**. More erect and leafy; from selected plants; Oz. \$1.50. **BERB-84P. 50¢**

BESSEYA: see *Synthyris*.

BIDENS (BY-denz) Burr-marigold

Closely related to *Cosmos* and resembles it with its divided leaves and clustered heads of yellow or white ray flowers. Grow in moist places; easily grown.

- dahljodes**. (*Cosmos atrosanguinea*)....Large Dahlia-like fls; red, HP.....**BIDE-3. 20¢**

BIXA (BIX-ah) Annatto

Tropical American tree grown in S Fla for the annatto dye from pulp around seeds.....

- Orellana**. Easily grown from seed; the dye used in butter coloring.....**BIXA-1. 25¢**

BLOOMERIA (bloo-MEE-re-ah) Golden Stars

They stand several degrees of frost; thrive in sandy soil and sun; corms should be dug after ripening and replanted in the fall; easily grown from seed, HHP.

- Clevelandii**. A miniature Bloomeria; cute in the RG; HHP.....**BLOO-2. 30¢**
 —**crocea**. Golden Stars. Pure yellow; 18 inches; not hairy in far N; HHP.....**BLOO-1. 30¢**

BOLTONIA (bol-TOH-nee-ah)

They resemble wild Asters; are easily grown from seed and make nice plants in the border or wild garden; found in moist places; HP.

- latjsuama**. Heads in rays blue-violet; 1 inch across; HP.....**BOLT-2. 20¢**

BOLUSANTHUS (bo-luh-SAN-thus)

One African trees that can be grown in S. Calif.

- speciosus**. Rhodesian Wisteria. Tr 15 ft; pendant racemes purple-blue.....**BOLO-1. 30¢**

BOMBAX (BOM-bax)

Large trees suitable only for southern Fla; ornamental in the tropics.

- malabaricum**. Fls to 4"; clusters; fruits 6 in. long..... **BOMX-1. 25¢**

BOMAREA. (boh-MAY-ree-ah) Amaryllidaceae.

S. AM. twining plants grown in the cool green house or out doors in the South. Rich soil and partial shade best for them.

- Andean species**. Collected in Columbia.....**BOMA-1. 40¢**

BOTTIONEIA. (bot-ti-OH-ne-ah) Lilaceae.

One bulbous perennial from Chile.

- thysanoides**. White fls; similar to *Anthericum*; 16" high; HHP..... **BOTT-1. 30¢**

The *Isoloma hirsutum* seed that I received last January was a complete success, in fact I never planted any finer seed. I believe every one grew. Paul Keper, Nutwood, O.

BRACHYCOME....(brak-KIK-oh-me) Swan River Daisy

Herbaceous annuals and perennials generally branching stems and solitary or loosely clustered heads of daisy-like flowers. Easily grown from seed.

- IBERIDIFOLA**: Covered through the summer with star-shaped blooms; 12 in. HA.
 —**Blue Star**. **BRAK-1B. 15¢**
 —**White**. **BRAK-1W. 15¢**
 —**Pink**. **BRAK-1P. 15¢**
 —**Mixed**. **BRAK-1X. 10¢**

BRIZA (BRY-zah) Quacking Grass Ornamental Grass

Quacking Gras. Ornamental grasses grown for bouquets, dried or for specimen plantings. Sow seed early in spring in average garden soil; easily grown.

- maxima**. To 2 ft. HA..... **BRIZ-1. 15¢**
 —**minor**. To 18 inches, HA..... **BRIZ-2. 15¢**

BRODIAEA (broh-di-EE-ah)

Hardy on West Coast and in the South; in North they can be grown in RG with good winter protection. Excellent for naturalizing; dislikes wet situations

- californica**. Violet-purple fls; 1 ft., Calif; HP. **BROD-2. 25¢**
 —**capitata**. (Now *Dichelostemma pulcellum*)....Earliest, light blue, HP.....**BROD-3. 25¢**
 —**Hendersonii**. Fls. striped brown in heads, RG, 6 in., HP.....**BROD-7. 25¢**
 —**orecuttii**. San Diego Wild Hyacinth..... **BROD-9. 25¢**
 —**puchella**. Erect heads, clear blue, 2 ft, sun, HP.....**BROD-11. 25¢**
 —**Brodiaea** Blend. Blend of all species. **BROD-X. 20¢**

BROMELIADS: Seed collected in Columbia; no species name..... **BROM-1. 25¢**

BROWALLIA (broh-WALL-e-ah)

Free flowering half hardy annuals, 1-1½ ft. tall, excellent bedding plants, set at least 6 inches apart. The blues are intense. Sunny locations, good soil, start seeds early indoors for early plants. Also good winter pot plants.

- speciosa major**. 5 ft. fls deep blue, 2 in. ac. used in hanging baskets.....**BROW-3. 20¢**
 —**viscosa compacta v. Sapphire**. Compact; dark blue, white eye; 9"; pots **BROW-4S. 25¢**

BRUCKENTHALIA (bruk-en-THAL-ya)

A single species very closely related to the Heaaths and requiring same culture.

- spiculifolia**. Fls racemes, very small bell-shape, pink, red berries, HP.....**BRUC-1. 25¢**

BRUNNERA. (BRUNN-er-ah) Boraginaceae.

Similar to *Anchusa*, native of Siberia and E. Med. regions. They are small herbaceous plants.

- macrophylla**. Blue fls ¼" ac; Caucasus; 1½ ft; HP..... **BRNN-1. 15¢**

BRUNSFELSIA (brun-FEL-zi-ah) Greenhouse Plants

Tropical shrubs and trees grown in GH but out door in far S. Attractive plants for pots. Rich soil, night temp. 50 degrees.

- americana**. To 8 ft. fls white, very frag. at nite, TP.....**BRUN-1. 25¢**

PIONEER SEED COMPANY — DIMONDALE MICHIGAN

CAMPANULA isophyllia — White Form

We would like to hear from any reader who has the white form of this species.

SUBSCRIPTION WORK

We would like to contact some one who has an opportunity to attend flower shows and who can take subscriptions as well as promotion work.

We will pay a salary to right party:

DAFFODIL BULBS

KING ALFRED. One of the finest of all the Yellow Trumpets; excellent for both forcing or the garden; large trumpets, a golden yellow and deeply frilled.

3 large bulbs, 30¢; Doz. \$1.00; 100, \$8.00

HELIOS. Deep golden yellow perianth, semi overlapping, cup opens a little darker than the petals and in a cool climate gradually changes to a light orange.

Large bulbs: 15¢; doz. \$1.00; 100 \$8.00

DAISY SCHAFFER. One of the best of the new Giant Leedsii type, the flowers are 4½ inches across with cups nearly 2 inches resembling a Giant Trumpet but much more graceful in form; perianth white with cup opening primrose and turning to light canary-yellow, deeper at the base; long lemon-yellow stigma and styles add to the color harmony of this remarkable flower.

Each; 25¢; doz. \$1.75; small planting size, \$8.00 per 100.

SCARLET ELEGANCE. One of the first to bloom in the garden; has a deeply color-scarlet crown; perianth deep yellow; very fine for cut flowers;

Each: 20¢; doz. \$1.25; 100 \$9.00.

TWINK. Charming pale primrose flushed white, center deep orange-red; it is an easily grown variety and excellent in every way and probably best of the double Narcissus.

Each 20¢; dozen \$1.50; 100, \$11.00

CHEERFULNESS. A double form of *Elvira*, creamy white perianth with a full double center of pale yellow; a Tazetta Narcissus; strong grower.

Each, 20¢; dozen \$1.00; 100, \$8.00

GERANIUM. A beautiful Poetaz hybrid with heads of 4-6 flowers per stem, with broad pure white petals of solid substance; a bright orange cup; an effective late variety for the border or forcing after middle of February.

Each, 20¢; dozen \$1.10; 100, \$8.50

REMBRANDT. A very early large golden yellow trumpet of lovely carriage; petals are flat, broad and somewhat pointed and a large expanded trumpet, nicely flanged at mouth; showy variety for both the garden or for pots; a vigorous grower.

Each, 20¢; dozen \$1.30; 100,\$9.00

FEBRUARY GOLD. A Poeticus Narcissus with lovely golden yellow trumpets. It should be planted in the rockery for a very early display for it blooms first of all the varieties we have grown.

Each, 15¢; dozen \$1.00; 100, \$9.00

NOTE: 3 bulbs of a kind at the dozen rate and 25 of the same variety at the 100 rate.

SPECIAL COLLECTION: One large Bulb of each of the above nine varieties for \$1.50, postpaid; 3 each for \$3.50; post paid.

Each: 20¢; dozen \$1.50; 100, \$9.00

PLANTING SIZE NARCISSUS. Small size bulbs that will produce large bulbs next year; 25 of a kind at the 100 rate; no less than 100 sold. Prepaid.

KING ALFRED \$5.00
REMBRANDT 6.00
SCARLET ELEGANCE..... 5.00
CHEERFULNESS 4.50
GERANIUM 4.00

PIONEER SEED COMPANY
 DIMONDALE, MICHIGAN

CALCEOLARIA - CALENDULA

Buddleia (BUD-lee-ah) Butterfly Bush

- Butterfly Bush. Dicotyledonous or half hardy evergreen sh. or trees, a few hardy in the N. Grows rapidly, free bloomers, easy from seed, grow on in frame first year.
- asiatica. Tender, flowered in GH in W from sd sown in sp; white.....BUDD-2. 25¢
 - globosa. Orange-yellow fls; striking, 15 ft.BUDD-9. 25¢
 - Davidii. Summer Lilac. Lilac with orange eye, 10" spikes; 15 ft; HSh.....BUDD-7. 25¢
 - New Garden Forms. Beautiful strain.....Oz. \$1.00 BUDD-7N. 35¢
 - Colvillei. Tender sh. dense spikes of purple fls; 15 ft.BUDD-5. 25¢
 - japonica. Lilac fls in drooping 8" panicles; 6 ft; HSh; Japan.....BUDD-11. 25¢
 - intermedia. Hybrid, violet fls in drooping panicles; TSh.....BUDD-10. 25¢
 - Buddleja Blend. A blend of both varieties and species.BUDD-X. 25¢

Bulbinella (bul-bi-NEL-ah)

Perennial plants from New Zealand and S. Af. Fleshy tuberous roots, grass-like leaves, yellow or white fls in dense clusters at end of bare stems. Plant in RC or border, not hardy in N.

- Hookeri. Bright yellow fls in 10" racemes; 2ft; TP.....BULB-1. 25¢

Bulvsanthus speciosus.....BULV-1. 25¢

Buphthalmum (bewf-THAL-mum) OX-EYE. Compositae.

Showy herbaceous perennials, 3-4 feet high with large heads of yellow disk or ray flowers. They are easy to grow and suitable for the border; hardy well up into the North; may flower the first year if started early.

- salicifolium. Neat border plant; yellow fls; root runner; 2 ft; HP.....BUPH-23. 20¢

Buxus (BUX-us) BOX. Buxaceae.

Evergreen shrubs extensively used as hedges. They stand shearing well and thrive even in partial shade; they are slow growers a good point for hedges.

- sempervirens. Common Box. Grows to 25 ftLb. \$3.25.....BUX-5. 25¢

Cactus

Popular name for many desert growing plants. They vary much in form and size, most of which are not hardy in the N but grown in pots indoors. The hardy sorts must be perfectly dry in the winter and should be covered with glass to keep soil dry. To germinate seed, sow in pot of light soil, and keep inside; they require from 20 days to 4 months, grow on in pots, always watering from below and not too freely.

- cereus. Mixture of S. A cereus, fast growing, white fls; nite blooming.CACT-1. 20¢
- Strawberry Cactus. Clumps, 4 inches tall in 2 years.....CACT-2. 15¢
- Barrel Cactus. Scenic desert plant; to 6 ft; white.....CACT-3. 15¢
- Cactus Blend.CACT-X. 15¢

Calandrinia (kal-an-DRIN-ee-ah) Portulacaceae.

Low growing fleshy plants, grown as annuals in the rockery or for edging. Flowers orange-yellow and coppery rose to brick red or crimson magenta. Best in sunny spot.

- ciliata v. Menziesii. Red Maids. Crimson fls; erect; HA.....CALD-4. 20¢
- umbellata. Scarlet fls; to 6 in; Peru; 1HA.....CALD-8. 20¢

Calceolaria (kal-se-oh-LAY-ri-ah)

A very large genus from C. and S. Am. of creepers, plants and shrubs. All have pouch or slipper-shape fls usually in yellow, often with dots and splashes of other colors Many are GH plants not hardy in the North.

- crenatifolia. GH, yellow with orange-brown spots; TPCALC-4. 25¢
- Dippe's Pansy-flowered. NEW type from Germany fls double pouched and in the most beautiful color combinations. No florist should miss this.CALC-4D. 50¢
- grandiflora tigrina. Finest strain of tigered fls;TP.....CALC-9. 30¢
- herdeohybrida. (Perfect Model.) Form of C. crenatifolia, TP.CALC-10. 40¢
- mexicana. Annual species; small yellow slippers, 1 ft HA.....CALC-16. 20¢
- Florist Small Flowered Strain. The best strain obtainable.....CALC-10F. 50¢
- Florist Mixed. All florist type mixed for general use.....CALC-FX. 50¢

CALIFORNIA POPPY: see Eschscholzia.

Calendula (kal-LEND-yew-lah) Cool weather plants

Definitely cool weather flowers and in the S should be sown in the fall. They like full sunshine but do not take well to burning sun of summer. In the N start indoors or pr plant in the open as soon as weather is settled. Select the right varieties for out doors or for GH growing. Grow about 2 ft high; all HA.

Following all C. officinalis:

- Amber Glow. Long stem; amber-yellow with dark center.CALN-7A. 15¢
- Apricot Queen. A beautiful apricot color.CALN-7AQ. 15¢
- Ball's Extra Double. Free flowering, bright double orange, GH.CALN-7BD. 20¢
- Ball's Gold. Deep golden yellow, GH.CALN-7BG. 20¢
- Ball's Masterpiece. Clear orange with dark center, GH.CALN-7BM. 20¢
- chrysanth. Large clear buttercup-yellow.CALN-7C. 15¢
- Campfire. Large brilliant orange with lemon sheen, very good.CALN-7CF. 15¢
- Corniche d'Or. Pretty golden yellow.CALN-7CO. 15¢
- Frilled Beauty. Double orange fls with frilled petals.CALN-7FB. 15¢
- Hollandia. Extra double deep orange; long stems; exeent cut.CALN-7H. 15¢
- Indian Maid. NEW, Pale orange with distinctive maroon eye.CALN-7NM. 15¢
- Jewell. Deep orange, full double, semi-dwarf; fine bedder.CALN-7J. 15¢
- Lemon Queen. Pretty sulphur-yellow; flat head.CALN-7LO. 15¢
- Le Proust. Nankeen yellow and an excellent type.CALN-7LP. 15¢
- Mammoth Orange. Best extra large deep orange.CALN-7MG. 15¢
- Market Tangerine. Deep tangerine orange.CALN-7MT. 15¢
- Meteor. Double orange with yellow stripes; different.CALN-7M. 15¢
- Orange King. Florist strain; reselected; double orange; long stems.CALN-7GK. 15¢
- Orange Fantasy. A crested type in orange; different.CALN-7GS. 15¢
- Sunshine. Golden yellow; curled petals; long stems, good for cut fls.....CALN-7S. 15¢
- Radio. Double quilled petals; orange-scarlet; pretty.CALN-7R. 15¢
- Radio Golden Beam. Pure golden yellow; curled petals.CALN-7RG. 15¢
- Tip Top. An excellent Holland strain for outdoor planting.CALN-7TT. 15¢
- Yellow Colossal. Large Chrysanth type but more double.CALN-7YC. 15¢
- Florist Varieties Mixed.Oz. 50¢; ¼ lb. \$1.00.....CALN-7FX. 15¢
- Mixed Art Shades. Pastel shades.....CALN-7A. 15¢
- Special Market Strain. For outdoor growing; excellent; Oz. 30¢.....CALN-MX. 15¢
- Garden Varieties Mixed. For outdoor growing.....Oz. 40¢; ¼ lb;75¢....CALN-7GX. 15¢

PIONEER SEED COMPANY

DIMONDALE MICHIGAN

Some Common Names

Thank you for the very interesting copy of Saier's Garden Magazine. For some time I have had some information for Lawson Bailey, as requested on page 46.

Bolusanthus speciosus, Rhodesian Wisteria.

M'pakwa, M'poea, and Maawthlu. This is given in Macmillan: Tropical Planting & Gardening, page 80.

Caesalpina Gilliesii is called the Bird of Paradise in the Southwest as is also Strelitzia reginae. Reference, Hoyt: Ornamental Plants for Sub-tropical Regions, page 297.

The common name for Bauhinia, according to Bailey's Cyclopaedia of Horticulture, is Mountain Mahogany and Orchid Tree.

Erythrina humeana is called Hume's Erythrina in Nicholson's Illustrated Dictionary of Gardening, vol. 1, page 532, but Steedman: Some Trees, etc., of Southern Rhodesia, on page 24, discusses the confusion of this with other Erythrinas and gives no common name.

Hoping this will be of interest,

By Anna D. Menninger, Los Angeles

Plant Rudbeckias Now



It is time now to sow seeds of this very pretty flower.

If you will sow the general mixture which contains all the various varieties you will be repaid with a pretty mass of flowers at this time next year.

They all have a prominent center of a dark brown color and shades of

yellow and some are tinged with red. They grow about 2-3 feet high and not hard to raise; better treated as a biennial.

NO ADDRESSES!

The following subscriber's magazines have been returned: H. Roy Denman, 1363 Kaighn Ave., Camden, N. J; Helen W. Waggoner, 9116 15th Ave., Seattle, 5, Wash; Mrs. B. J. Harrison, 3201 Paces Ferry Place., N. W., Atlanta, Ga., andTom Kaino, 111 W. Del Mar St., Pasadena, 2, Calif. If any reader happens to know one of these subscribers we hope we can get in touch with them.

IRIS IN ALASKA

Continued from Page 88

fering these wire holders and will do so for next spring as the only source that we know of is in England.

Write us more about flowers in Alaska.

We are going to send your collection of Pink Daffodils by air mail, so that they can be planted as early as possible, and suppose you send us some native seeds of Iris and Arctic Cotton, Mrs Given.

AFRICAN VIOLET STEM CUTTINGS

A leaf with a stem 2 inches long will root easily and quickly in water. Split the stem a half inch and allow to stand a couple of hours before putting into the water.

Use a colored glass or bottle and keep the water level so as to cover the end of the stem, an inch.

A cover to the glass with holes punched through it to hold the stem steady will keep the stem at the correct level better than just laying the leaf over the edge of the container.

CALOCHORTUS - CAMPANULA

Calla Lily: see Zantedeschia.

CALLIOPSIS (kal-lee-OP-siss) The annuals in Coreopsis

Only the annual sorts are listed here. The perennials will be found under Coreopsis. These are hardy annuals; make fine display in the flower border and are excellent for cutting. Sow seed early in April where they are to grow and thin to 6 inches if you want a strong growth. There make excellent cut flowers.

- DRUMMONDI:** Most of the garden sorts belong to this species. Golden Wave. Annuals to 2 ft. flower heads 2 inches across on long stalks; flowers in rays; easy.
- Golden Crown. Crested rich golden yellow..... CALP-7GN. 15¢
 - Golden Wave. Pure yellow with dark brown center; pretty..... CALP-7GW. 15¢
 - Semi-dwarf, Mixed. Plants 2-2½ ft. in all colors..... CALP-7DX. 15¢
 - Tall Varieties Mixed. Double and semi-double fls fine garden strain..... CALP-7TX. 15¢
 - Bicolor marmorata. Bright golden marbled with wallflower-red..... CALP-25M. 15¢
 - Crimson King. Dwarf; red flowers..... CALP-7CK. 15¢
 - Golden Ray. Dark purplish brown center; broad golden petals; dw..... CALP-7GR. 15¢
 - nigra speciosa. Quaint reddish maroon flowers..... CALP-7N. 15¢
- TINCTORIA:** These showy border plants, fine for cutting; rays yellow, crimson-brown at base and disk brownish purple; HHA, 1-2½ ft.
- Bicolor nana. Dwarf growing in golden yellow and crimson..... CALP-6BC. 15¢
 - Bicolor Hybrids. Double fls in many colors..... CALP-6DX. 15¢
 - bicolor. Yellow and brown fls; 2 ft..... CALP-6CB. 15¢
 - Dazzler. In rich brilliant colors; 9 inches..... CALP-6D. 15¢
 - Tiger Star. Rich bronze, striped and mottled yellow, 1 ft; pretty..... CALP-6T. 15¢
 - Mixed Tinctoria Varieties..... CALP-6X. 15¢
 - Dwarf Mixed. Finest varieties on dwarf plants; 18"; HA..... Oz. 35¢ CALP-DX. 15¢
 - Calliopsis Blend. A blend of all the annual sorts..... CALP-X. 15¢

- cardaminefolia. Bicolor fls, yellow and brown, 1" ac; 2 ft; HA..... CALP-8. 15¢
- nueceusis. Yellow rays, dark lined, heads 2" ac; 2 ft; HHA..... CALP-18. 15¢

CALLICARPA. (kal-lik-KARP-ah) BEAUTY BERRY. Verbenaceae.

Shrub and trees having attractive small pink, bluish or wwhite flowers in axillary clusters followed by attractive berry-like fruits. They are hardy into the North.

- americana. French Mulberry. Fls bluish; not hardy in N; 6' Lb \$3.50.... CALE-i. 25¢

CALLISTEPHUS: see Asters.

CALLIRHOE (kal-LIHR-oh-ee) Poppy-mallow

Poppy Mallow. N. A. annuals and perennials, picturesque lobed foliage and showy flowers in pink, red or reddish purple, long in bloom; thrives in poor and dry soils.

- involuta. Wine Cup. Claret crimson, cup-shape; June-Sept; 30"; HP..... CALI-2. 20¢

CALLUNA (kal-LEW-nuh) Heather

The true hardy Heathers, they are adapted to cover dry sunny slopes; lime free soil.

- vulgaris. Rosy pink fls, 2 ft; in late summer HP..... CALL-1. 30¢
- alba. The best white variety..... CALL-1W. 30¢
- St. Patrick. Red-brown fol; 4-6 in tall; Aug-Sept..... CALL-1S. 40¢

CALOCHORTUS (kaloh-KORT-us) Mariposa-lily, Globe Tulip

W. Am. plants of Lily F. forming corm and bearing bell-shaped lilac, yellow or white flowers. They are known under the names Mariposa Tulips, Butterfly Tulips, Globe and Star Tulips, Sego Lily and Fairy Lanterns. Of great beauty; hardy in the N but should be protected against winter heaving. Sunny places; light soil; well drained; raised beds should be ideal; handle bulbs much as you would Tulips.

- albus. Fls white, purplish at base; 2 ft tall; HP..... CALO-2. 20¢
- concolor. CALO-12. 30¢
- hybrid. A possible hybrid of C. concolor and Weedii..... CALO-21. 25¢
- Hybrida superba. Excellent strain of bicolor hybrids..... CALP-6HX. 15¢
- luteus v. citrinus. Lemon yellow with dark brown spot; 2 ft; HP..... CALO-23C. 25¢
- macrocarpus. Lavender; 10 in. tall; June-July HP..... CALO-25. 25¢
- Maweanus. Best of genus; lavender RG; 4 in early spring; HP..... CALO-26. 30¢
- splendens. Lilac Mariposa; Calif; 2 ft; HHP..... CALO-38. 25¢
- Weedii. Yellow dotted with orange-brown; 2 ft; HP..... CALO-46. 25¢
- Calochortus Blend..... CALO-X. 20¢

CALPURNIA (kal-PUR-ne-ah)

Trees and shrubs; flowers in racemes, native of S. Af. and grown out doors in S and GH in N. They are ornamental.

- aurea. Af. Laburnum. 15 ft; yellow fls..... CALU-1. 30¢

CALTHA.....(KALTH-ah) Crowfoot Family

Small succulent perennials thriving in marsh land near running water but can be grown in moist sections of the garden. They are especially nice near water gardens blooming in the spring and often again in the fall. Long lasting when cut.

- biflora. White buttercups; RG or bogs, in full sun, HP..... CALT-1. 30¢
- pulustris alba. Rare pure white form; 2 ft; HP..... CALT-5A. 40¢
- leptosepala. Similar to C. bicolor; 4 inches high; HP..... CALT-4. 25¢
- scaposa. Seeds collected in India..... CALT-8. 20¢

CAMASSIA ka-MASS-ee-ah) Camass

N. Am. bulbous plants of the Lily Family. Blue and white flowers in graceful racemes and narrow grass-like foliage. Perfectly hardy; plant in groups.

- esculenta. Erect spikes of pale blue; cuts; 2 ft; HP..... CAMA-3. 25¢
- Leichtlinii. Pretty purple to creamy white; 1½-2 ft; HP..... CAMA-6. 25¢
- Quamash. Blue fls; 18 in. tall; May; fine..... CAMA-7. 20¢

CAMPANULA (kam-PAN-yew-lah) Bellflower, Canterbury Bells

(kam-PAN-u-lah) Canterbury Bells; Bell Flowers; Harebell. Biennials, perennials and a few annuals. They are excellent for the border, some species for the rock garden and all make good cut flowers. All the biennials and perennials can be started from seed, sown indoors in March and set outdoors in May or June or they can be started about July. A covering of leaves is good for winter protection. The seed being small, it will be well to scatter them on a good light loam, press into the soil lightly and cover.

CAMPANULA: Continued on Page 95.

Growing Ginseng

They say that one can get up to \$10.00 per pound for dried Ginseng roots; we would be pleased to hear from reader who have raised this root as to their actual experience in pleased to hear from readers who have raised

Ginseng is very hardy and will thrive in soils of ordinary richness where it will yield up to 1,800 pounds per acre. The plants are about 14 inches high and bear large clusters of light green flowers which later turn into green berries. These when ripe turn a bright crimson-red. The berries contain the seeds and number as many as 50 per plant.

The roots are the valuable part of the plant and resembles parsnips very much, both in color and shape; they weigh from a few ounces to a pound per plant.

The soil if of medium garden type and mixed with rotted leaves is about all that will be required. They do best when given shade.

The roots are dug after the plants have died down; be sure to get the entire root. These are washed clean of all soil and then spread out to dry, usually requiring 3 weeks after which they are ready for the market.

Ginseng seed should be planted as soon as ripe, in August, as otherwise they go into a dormant stage and will not germinate till the following spring and sometimes not until the second spring.

PLANTING DEPTH FOR LILIES

One common failure with lilies is in the depth at which they are planted and too often it is too deep rather than not deep enough that causes the trouble.

You will have to use judgement when following directions. If it says plant 6 inches deep, it would be right, but for a good sized matured bulb in a good lily soil, rather light and moist. But if the bulb you purchased was not a top sized bulb for the particular variety and your soil rather heavy and stiff than you would want to plant it much more shallow; you would want to be more careful to put a few handfuls of sandy soil under each bulb. The later in the fall you set your bulbs out, the more you want to mulch them so that they will continue to form roots before winter actually sets in. Many species are not really matured till in October so the soil should be made ready 2-3 months earlier, with a fine mulch on it to conserve the moisture and give life to the soil.

If you are in doubt as to the depth, make it a little less rather than a little deeper; then see that there is a good mulch provided; this is more important than the depth.

SOLIDAGO VIRGAUREA

A Goldenrod that would not be considered a weed as are all the American species.

Its flowers are a bright yellow in dense clusters up to 8 inches long; 2-3 feet high and a good companion plant behind the Peach-leaved Bellflower, Carpathian Harebells, etc.

Its form known as Gold Wings, and that grows to 4-5 feet high, does not come true from seed, it being a sport of the species.

GENTIANA VARNA

Gentiana verna germinates only in March and at no other time and if you have a plant and hoe around it after the seed has fallen on the ground, you spoil your chances for a crop of seedlings.

Maianthemum becomes a weed difficult to eradicate.

PIONEER SEED COMPANY

DIMONDALE MICHIGAN

CANTERBURY BELLS - CANNA

CAMPANULA: Continued from Page 94.

MEDIUM: Canterbury Bells; Single, 3 ft; June-July; HB

Canterbury Bells. (C. medium). Biennials, flower June-July; 3 ft; HB.

—Blue	CAMP-1B.	15¢
—Lilac	CAMP-1L.	15¢
—Rose	CAMP-1Z.	15¢
Blend of above colors	CAMP-1X.	15¢

DOUBLE FLOWERED CANTERBURY BELLS: 2½ ft; HB.

Rose	CAMP-2Z.	15½¢
White	CAMP-2W.	15¢
Blue	CAMP-2B.	15¢
Dean's Hybrids. Double and Single.....	CAMP-2XD.	20¢
Blend of all colors	CAMP-2X.	15¢

CALYCANTHEMA: Cup and Saucer; 2½ ft; HB

calycanthema, White	CAMP-3W.	15¢
—Blue Sky blue; single.....	CAMP-3B.	15¢
—Rose	CAMP-3Z.	15¢
—Lilac	CAMP-3L.	15¢
—Double and Single, Mixed.....	CAMP-3XD.	15¢
—Blend of all colors and shades	CAMP-3X.	15¢

Campanula Species:

—campanulata v Moesiaca. Collected in Austria.....	CAMP-18.	25¢
barbata. Distinct, pretty, porcelain blue; 1 ft; HP	CAMP-13.	25¢
carpatia. Blooms all summer, erect fls, blue; July-Aug; 1 ft; HP.....	CAMP-20.	15¢
—turbinata. Erect cup-like, light blue fls, neat RG; 6"; HP.....	CAMP-20T.	25¢
—White. Pure white; single.....	CAMP-20W.	15¢
collina. Deep blue fls, neat dwarf RG, 8"; HP	CAMP-25.	25¢
drabifolia. 6 inch annual, fls blue with white tube, HB	CAMP-29.	30¢
Elatinus v. garganica. Trailing species, blue fls, very nice, HP	CAMP-30G.	25¢
Formanekiana. Erect, large showy white fls; lvs silver-gray, 8", HP.....	CAMP-37.	25¢
fragilis. Tr. fine for hanging baskets; fls blue, white centers, 16", HP.....	CAMP-38.	25¢
glomerata. Blue or white, in dense clusters; 2 ft; HP.....	CAMP-39.	30¢
—incurva. Erect; pale blue fls 2 in. long; Greece; HB?.....	CAMP-42.	30¢
latifolia. Very large blue fls; excellent; 3 ft; HP	CAMP-51.	20¢
—alba. A white form of above	CAMP-51W.	20¢
—macrantha. Large deep violet fls; showy in border; 2 ft; HP	CAMP-51M.	20¢
longestyla.....Large nodding blue-purple fls; 18"; HB	CAMP-57.	25¢
persicifolia. Large blue fls; very pretty; 3 ft; HP	CAMP-71.	20¢
—Ladham's Strain. Giant flowered strain.....	CAMP-71L.	25¢
—Princess Royal. Deep blue variety.....	CAMP-71R.	25¢
—alba. Pretty white form of above; HP	CAMP-71W.	20¢
Poscharskyana. Lovely pale blue s; July, 4"; HP	CAMP-78.	25¢
punctata. Many fls, white, spotted inside, 2 ft; HP	CAMP-86.	25¢
pyramidalis. (Chimney Bellflower). Fine for border; pale blue; 3 ft; HP	CAMP-87.	20¢
rapunculoides. Vigorous persistent invading sp; fls violet-blue; 3 ft; HP	CAMP-95.	25¢
Rock Garden Sorts. Low growing types.....	CAMP-100.	25¢
Rapunculus. Lilac-blue fls in narrow racemes, 3 ft; HB	CAMP-96.	15¢
rotundifolia. (Harebell) Slender, graceful habit; fls pale blue; 1½ ft HP	CAMP-99.	15¢
—superba. Large flowered strain; 2 ft; HP	CAMP-99S.	20¢
—Olympic. Large beautiful deep lavender fls; 2 ft; HP	CAMP-99P.	20¢
thyrsoides. Erect, very leafy; fls yellowish, in spikes; 2 ft; HB	CAMP-121.	25¢
Tommasiniana. Fls nodding, violet; stem not upright; 1 ft; HP	CAMP-122.	20¢
Trachelium. Blue-purple fls, nodding, in loose racemes; 3 ft; HP	CAMP-124.	25¢
—trachelium album. White nodding fls in loose racemes; 3 ft; HP.....	CAMP-124W.	30¢
sarmatica. Very distinct dwarf sp; erect, violet nodding fls; 1-2 ft; HP	CAMP-103.	25¢
Sartori. Fls white, narrow bell-shaped; 10"; HP	CAMP-104.	25¢

CANDYTUFT: See Iberis.

CANNA (KAN-noh)

Tropical summer flowering plants growing from thick fleshy tuber-like roots. Valued for both their tropical appearing foliage and their brilliant flowers. Range from 2-10 ft. tall and should be grown as an annual in the N. File notch in seed and soak in warm water over night; start early in spring.

C. FLACCIDA: The commonly grown foliage plant.

—Crozy. Dark leaved sorts in vivid pink, red, yellow and orange; TP.....	CANA-1C.	20¢
—New Giant Hybrids. A Holland strain in several colors.....	CANA-1H.	20¢
—Mixed. All strains mixed.....	CANA-1X.	20¢

CAPSICUM (KAP-se-kum) Pepper

Under this are listed mainly the ornamental peppers. They are grown mainly as pot plants; require warm temperature, sun and fairly rich soil.

—Little Gem. Small garnet colored fruits; pot plant.....	CAPS-1G.	25¢
—Prince of Orange. Small orange colored fruits; pot plant.....	CAPS-1P.	25¢
—Tom Thumb. Small plant with miniature red fruits.....	CAPS-1T.	25¢
—Miniature, Mixed. Small plants mixed varieties.....	CAPS-1MX.	25¢
—Blend. All types and varieties.....	CAPS-X.	20¢

CARICA (KAY-rik-ah) Papaya

Tropical trees with melon-like fruits; grown only in the far South.

—cundinamarcensis.....Collected in Columbia.....	CARI-2.	30¢
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CARDIOSPERMUM (kar-ee-oh-SPERM-um) Heart-seed

Hardy annual and perennial vines excellent for covering fences or trellises; grow to 10 feet. The seed pods are inflated like balloons. Best to sow seed where they are to grow or start indoors; light soil and sheltered spot best.

—Halicacabum. Balloon vine.....Soak seed, they require to 40 days to germ.....	CARD-3.	20¢
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CARDUUS. (KAHR-deu-us) Plumeless Thistle, Silybum.

Vigorous, robust, spiny-leaved annual and perennial plants with purple tubular flowers, very striking in both flowers and foliage, some being very ornamental. Grows well in ordinary soil.

—benedictus. Blessed Thistle. Lge. yellow heads; sow April; 2 ft. HA.....	CDUS-2.	20¢
—Marianus.....(Silybum Marianum) White fls; 4 ft; HA.....	CDUS-3.	20¢

CARNATIONS: see Dianthus caryophyllus.

CARTHAMUS. (KAHR-tha-mus) Bastard Saffron, Safflower.

Spiny leaved annuals; flower heads purplish, yellow or white, making ornamental clumps in the border.

—tinctorius.....Produces 2 dyes; orange heads; sow seeds in April; 3 ft; HA.....	CATH-3.	20¢
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PIONEER SEED COMPANY — DIMONDALE MICHIGAN

GERANIUM IBERICUM

A beauty for the shady nook in the garden. Its large lovely flowers in soft purple or white makes a fine display for 3-4 weeks in early summer.

Plants grow as high as 2-4 feet and often takes on beautiful autumn foliage tints.

G. platypetalum is very lovely, with flowers 2" across and of a rich velvety violet-purple on plants to four feet.

Its pure white form does not come 100% true from seed.

ANGELICA

Angelica (A. officinalis) is a perennial herb best treated as a biennial. It grows about 5 feet high.

Freshly harvested seed germinates best and can be sown in August or September.

Allow for fewer seedlings in spring planted seed. Seedlings can be set out while quite small, spacing them about 2 feet apart.

Angelica can be put to many uses and is one of the most aromatic members of the Parsley Race.

GARDEN NEEDS

MILLED SPHAGNUM MOSS

Fine milled grade of high class Sphagnum especially for the germination of flower seed

It comes in one bushel bags and weighs as much as 12 lbs in some bags.

PRICE: Per bag, prepaid by parcel post, for \$2.25 per bag.

VERMICULITE

Special for seed beds, for cuttings or for mixing in potting soil. It comes in three sized paper bags; the small size will take care of the germination needs of the small grower.

PRICES: 4 qt. bags, 55¢; ½ bushel bags, \$1.00; 2 bushel bags, \$2.45, prepaid by mail.

FERTO-POTS

These are organic pots which can be set in the ground with plants; they retain the moisture add plant food to the soil and pushes the seedling along for a quick start.

They come in three sizes., 2 inch 60¢ per doz; 100 for \$2.50; box of 500, \$6.50, prepaid. 2½ inch size, 65¢ per doz.; 100 for \$2.80; 250 for \$3.25; 3 inch size, 80¢ per doz; 250 for \$3.90. All prepaid by parcel post.

POT STAKES

3/8 inches wide; painted white, all prepaid. 4"-60¢ per 100; carton of 1,000 for \$4.00. 5"-60¢ per 100; carton of 1,000 for \$4.20. 6"-70¢ per 100; carton of 1,000 for \$5.00. 8"; 65¢ per 100; carton of 500 for \$4.50. 10", \$1.00 per 100; carton of 250 for \$2.25

SPECIAL GARDEN STAKES:

7/8" wide painted white; prepaid 8", \$1.15 per 100; carton of 250 for \$2.70. 1 1/8" wide; painted white; prepaid. These make a fine and cheap garden stake. 12" long; \$1.80 per carton of 100.

COPPER WIRED TREE, SHRUB TAGS:

3½" long, 5/8" wide, for tagging nursery stock or for wired labels for trees and shrubs; painted white.

60¢ per 100; \$5.00 per carton of 1,000

ACTIVO

2½ lb cans, \$1.00; 7 lb cans \$2.25, prepaid.

Pioneer Seed Company - Dimondale, Mich.



THE NEW HYACINTH-FLOWERED TYPE
OF PRIMULA



THE NEW LARGE FLOWERED TYPE OF
PRIMULA



THE OLD TYPE OF SMALL FLOWERING
PRIMULA

Our Way of Germinating Seed

Our method of germinating a great many flower seeds is very simple and also very practical. First, we try to have germination tests going all the time, so that there really is no certain time to put in any particular flower. Right now, it would be heavy on Delphiniums and Pansies, in fact this year we start trials on all the Pansy seed we handle. Each year these trials are on it seems that a great many friends are always in the garden and it is not uncommon to see their flowers in the snow of early spring.

We take an ordinary seed flat and spread an inch layer of milled sphagnum moss in the bottom; then we place 2 inch pots on this and while doing this, draw the moss in between the pots. Keep the pots in a straight row for this will help you to keep your records correct.

Filling Seed Pots with Moss

Next, scatter the moss over the tops of the pots and with the fingers push it down into the pots as well as in between, making a special effort to fill in the corners and around the edge of the flat; it is not necessary to pack them overly full. Then sprinkle water on them, rain water if possible and when you are sure it is wet to the very bottom, you are ready to plant your seed.

We have a yearly record book in which are kept all the records for the year, so when a flat is planted a row across two pages is given for each sowing; this lists the variety and especially the sorce and the age of the seed and its method of storage. In each pot a 4 inch wooden stake is run into the moss with the name of the seed; on the back side the month and day planted; when germination is noted, it is easily put on the back of the stake and later on when they were transplanted, in fact any other information that comes up as one waters and pulls weeds or such chores.

Small seeds the size of common shaker salt are merely scattered on top of the moss and then pressed down with the finger after which the finger must be cleaned of any seed sticking to it and especially under the nails;

many a lot of good seeds have been mixed up by the grower thru not being careful about this point:

If the moss is rather compacted in the pots, we sometimes loosen it just a little with the lead pencil one always has when planting his seeds. But ALWAYS press seed carefully into the soil so that they come in contact with it and able to all start together.

Seeds the size of radish we cover with some of the surplus moss in the corners of the box. Large seeds like Castor beans can be germinated the same way, except larger pots should be used and the seed should be covered.

The next operations will not be exactly in line with special seeds but we place the flat after it is filled, either under a shelf in the dark or up in the window or at other times in the cold frame if it is summer, and according to what is best for the majority of the seeds in the flat. As each pot germinates it can be removed from the flat and to positions more favorable to it and all that is necessary is to push a little moss into the hole where the pot came out; later on if there are pots not showing a germination when they should, they can be removed to another flat made up of similar cases, and which can be left for more time.

Do Not Neglect Transplanting

As soon as the seedlings are big enough to be transplanted, it is also time that they be removed, too. It is a common mistake to leave the seedling too long in the seed bed and especially if they are thick.

With the stakes in each pot, it will not be easy to cover them, but you can solve this by merely turning a similar flat upside down and over the pots, stakes and all and for at least a week little more attention will have to be given them; no cats will scratch them out and even mice will be barred.

In watering, if your sprinkler is not too course, you can sprinkle the flat if there is any indication of the tops starting to dry any.

One can put soil in the bottom of the pots and for the top moss covering screen the

moss finer than it comes to you, but in doing this one is liable to neglect the transplanting and it should not be recommended except in the case of seedling that should not be transplanted soon as in the case of some

Of course this covers only the seeds in the easy class. Any that require special methods of handling, will have to sown in a different way than just explained.

lilies, etc.

Make Check on Yourself

It is well when sowing seed not to plant all the seed in the packet at one time. Often something can go wrong, a flat is tipped over or the grandchildren take a look in the bottom of the pots or mice discover that you have so kindly placed some food out for them and so as not to offend, they clean it all up and dig down to get the last one; you will see the hole in the morning!

Save Your Primulas

Strong pot plants with an abundant blooming capacity can be had if the Primulas are held over the second year. All that will be required is to cut down the withered flowering stems in the spring and shift them to a size larger pot. Take off the top dirt and what can be safely removed from the bottom part and repot with fresh potting soil. Set them in a shady place in an outside frame and after the new roots start to grow, water freely. If the pots are plunged into the soil, so much the better.

In October or a little earlier in the far North, bring them into the greenhouse and give a light airy place but not too warm.

This is also a practical operation for anyone having a plant or two, held over as a house plant. You can easily grow a larger plant the second year.

These new type Primulas will be offered this year for the first time and we suggest that all florists growing Primulas, grow at least a \$1.00 packet of them as well as the new Pansy-flowered Calceolaria. It would be best if these two seeds were ordered now as they come from the Eastern Zone of Germany and deliveries are uncertain.

GET EVERY ISSUE — \$2.00 PER YEAR

TOP SELECTIONS-88 BEST LILIES

Continued from Inside Front Cover

L. DAURICUM. Oct.
Fl. Size .50 4.00 9.50

A very nice dwarf Lily; 1-2 ft. tall, with erect flowers varying from light orange-yellow to deep orange-red, spotted deep red. Excellent for a group of low growing Lilies; cover 4"; 2 ft. tall; June.

L. DAURICUM WILSONII. Oct.
3½-5" .50 5.50 11.00

This is a deep apricot, spotted mahogany form, erect flowers, and plant growing to 3 ft. It is a late bloomer, August, and will lengthen the Lily flowering time when other flowers are becoming scarce; cover 4".

L. DAVIDII (Improved) Oct.
4-5" .30 3.00 6.50
5-6" .35 4.25 8.50

Flowers are smaller and more refined than L. Tigrinum, recurved, brilliant orange red, spotted mahogany. It grows to 6 ft and flowers in July. An excellent Lily. Cover bulbs 5" and 1 ft. apart.

L. EDMUND L. KAGY. (Hybrid) Nov.
Fl. Size 4.00

An erect 6 foot beauty with 6 inch erect blooms with recurved tips in persimmon-orange lightly spotted or flecked oxblood-red. A stunning Lily for August flowers; cover the bulbs with 6 inches of soil.

L. EDNA KEAN. (Hybrid) Oct.
4-6" .60 5.75 11.50
6-8" .95 8.25 16.00

Similar to Brenda Watts but in a deep brick red or cherry-red, spotted black, an unusual Lily color. It is an easy one to grow, either in full sun or partial shade. 3-4 ft. tall; June-July; cover 6 inches.

L. ELEGANS MAHOGANY. (Hybrid) Oct.
Fl. Size .45 4.50 9.00

Deep mahogany-crimson, erect, stems 15-18 inches. Very attractive June Lily; cover the bulbs with 4" of soil.

L. ELEGANS SEEDLINGS. Oct.
Fl. Size .40 5.00 9.50

These pretty hybrids come in varying shades of apricot through orange to red with mahogany spots; 1½ ft; June; cover the bulbs 4 inches from the top of bulbs. golden orange, dotted oxblood-red, to 6 ft.

L. FIRE KING. (Hybrid) Oct.
4-6" 1.50 11.50 23.00
6-8" 2.00 14.50 29.00

Here is a very high priced Lily that we can offer at a substantially reduced prices, as it is a good multiplier, easy to grow and one of the best hybrid Lilies. Recurved blooms, vermilion-scarlet, held horizontally to the stem in an attractive arrangement. A group of these seen in your border will be a sight to be seen in June and early July. Cover 5"; 4 ft. tall.

L. FORMOSANUM. (Wilsoni) Late. Nov.
3-4" .30 2.75 4.50
4-5" .40 3.50 5.50
5-6" .50 4.00 7.00
6-7" .60 5.00 9.00

Lovely large trumpet, white with green throat and suffused externally wine-red; fragrant and longest flowering season of any Lily; September till frost. It grows to 8 feet high; cover bulbs 5 inches; 12 inches apart; full sun.

PRICES: Are for 1, 10, and 25 bulbs prep'd.

L. GALAHAD. (Hybrid) Nov.
Fl. Size 3.25

One of the new hybrid trumpet Lilies from crosses between Sulphureum, Sargentiae and Regale and selling for around \$6.00 each. It is a lovely shade of sulphur-yellow, blooming late in the summer, and carrying up to 14 flowers in a pretty pyramidal racemes. Cover 6"; 5 ft. high; Aug-

L. GIGANTEUM HIMALAICUM. Oct.
4-6" 2.25 19.00 37.50
6-8" 3.00
8-10" 4.00

A huge woodland giant, 6-12 feet tall with 10-20 large trumpets, 7-8 inches long. Flowers are white, tinged with green externally and suffused red-purple inside. It is truly a majestic Lily; grow in partial shade with no hot sun ever reaching it, in a deep loose woodland soil full of humas and only an inch of soil over the bulbs. Do not mulch this Lily; while it is hardy it is not hardy enough for northern Michigan but is grown up to Minnesota and Massachusetts, especially with an evergreen covering; plant 18-24 inches apart.

L. GOLD CREST. (Hybrid) Oct.
Fl. Size 2.75 21.00 43.00

An interesting small flowered Lily originated by J. C. Taylor from a cross of L. Philadelphia and L. tenuifolium v. Golden Gleam. The flowers are unspotted, golden orange, slightly reflexed and carried in a crown at the top of the stem; grows 2 ft. tall, flowering in late June.

L. GRACE MARSHALL. (Hybrid) Oct.
4-6" 1.40 8.50 17.00

One of Miss Preston's hybrids, a lovely deep red recurve with a few dark spots, 5 feet tall and flowering in July. The flowers are outward facing with as many as 30 blooms on a plant; cover bulb 6".

L. GRAYI. Oct.
1st. Size .55 4.50 9.00

Lovely small bell-shaped type Lily, crimson with orange throat and mahogany dots; July; 4 ft. tall; partial shade and a moist position best; cover bulbs 4".

L. GRENADE HYBRIDS SELECT Oct.
Fl. Size 3.00

A 1950 introduction, a cross between L. Maximowiczii Wadai and Dauricum Wilsoni. A true strain offered; flowers large, slightly recurved horizontal, in Chinese-coral, dotted garnet-brown; 3-5 ft; July; cover bulbs with 4 inches of soil.

L. GUINEA GOLD. (Hybrid) Oct.
Fl. Size 2.40 21.00 43.00

A new Martagon type Lily, recurved, small, buttercup-yellow and dotted brown; buds are pink. This is a strong grower thriving in partial shade, June-July, 4-6 ft. It is an excellent hybrid; cover 5".

L. HANSONII. Sept.
4-6" .65 6.00 12.00

This is an exceptional garden variety both for its beauty and its easy culture requirements. Blooms are bright orange-yellow and flecked brown, slightly recurved. medium sized flowers. To avoid color damage, grow in partial shade; 5 ft; June; cover 5 inches; set 1 ft. apart.

L. HENRYI x AURELIAN HYB. Nov.
Fl. Size 2.50 21.00 43.00

A fine group of scale propagated selections of flaring and recurving Lilies in pastel tones. Of easiest culture, these plants afford a wealth of cutflower material as well as being excellent subjects for the border. 5-6 ft; August; cover 6" with soil; 12-15 inches apart.

L. HENRYI. Nov.
6-8" .60 5.25 10.50
8-10" .90 6.75 13.50
10-12" 1.25 9.00 18.00

The Golden Speciosum Lily. Blooms just ahead of the Speciosum Lilies in August. Recurved blooms in a soft golden orange-yellow with green central lines along each petal and with a few brown spots. It is not hard to grow; best in partial shade and it makes a fine group in the border. 6-8 ft. tall; August; cover 6"; 12-15 inches apart.

L. HUMBOLDTII MAGNIFICUM. Oct.
1st. Size 1.50 11.75 24.00

A strong grower and most striking, as well as free flowering. Recurved, large golden orange, dotted oxblood-red, to 6 ft. tall; July. Usually takes a year to become established; cover 6".

L. JAPONICUM. Oct.
Fl. Size 1.00 9.00 19.00

The most beautiful pink Lily, exquisite 6 inch trumpet-shaped flowers and bearing 2-5 flowers in rose-pink to light pink. It is not of easy culture and should be in partial shade and protected from strong winds. Plenty of humas in the soil and as it is stem rooting, do not dig or hoe around it; 2-4 ft; late June; cover 4".

L. LILLIAN CUMMINGS. (Hybrid) Oct.
4-6" .60 6.00 12.00
6-8" 1.00 8.75 17.50

A fine new hybrid with large reflexed blooms in a bright orange-red with a few garnet spots. The flowers are held almost horizontal. A vigorous grower, blooming in July; 4-5 ft; cover 6"; 1 ft. apart; sun or partial shade.

L. LONGIFLORUM ESTATE. Oct.
6-7" .45 5.00 10.00
7-8" .60 6.00 12.00
8-9" .75 7.50 14.50
9-10" 1.10 8.00 16.50

Hardy Estate Lily. A large white trumpet Easter Lily that is good both for greenhouse forcing and the garden; it is not hardy in the Dakotas but is in Michigan. In the greenhouse it produces large flowers and is easy to grow. It is an all around fine Lily; 4-6 ft; July; cover 6"; 12-15 in. apart.

L. MARGARET JOHNSON. (Hybrid) Oct.
Fl. Size 2.00 15.50 31.00

A new hybrid of the Tiger Lily, the blooms coming in a delightful salmon-orange or Chinese-coral, dotted garnet-brown. Either sun or partial shade; 4-5 ft.; August; cover 6 inches.

NOTE THAT BULBS ARE SHIPPED IN SEPT., OCT. AND NOV. ACCORDING TO THE VARIETY. THEY WILL ARRIVE IN A FRESH CONDITION AND COME DIRECT FROM THE GROUND TO YOU.

Continued on Back Cover

PIONEER SEED COMPANY - DIMONDALE, MICH.

FRESHLY DUG AMERICAN LILIES

Continued from Inside Back Cover

L. MARHAM. (Hybrid) Oct.

Fl. Size 2.45 22.50 44.00

A Martagon album x Hansoni hybrid with lovely flowers of buttercup-yellow, shaded and dotted oxblood-red. It is a vigorous hybrid, healthy and easily grown; partial shade; 4 ft. tall; late June; cover the bulb with 5 inches of soil.

L. MAXIMOWICZII WADAL. Sept.

3 1/2-5" .25 3.25 7.00
5-6" .30 4.00 8.00

Early Tiger Lily. A refined Tiger Lily, healthy and easily grown. Recurved, large deep orange-red, spotted mahogany, 6 ft. July; cover 5"; 1 ft. apart.

L. MAXWILL. (Hybrid) Oct.

4-5" .35 3.50 7.00
5-6" .45 4.25 8.50

This hybrid is unsurpassed for all-around dependability in the garden and will produce up to 40 blooms on established plants. They are medium recurved in a brilliant orange-red, lightly dotted black. It grows 6 ft. tall; flowers in July and should be in every collection. Cover 5"; 1 ft. apart; sun or partial shade.

L. MEDEOLOIDES. Oct.

Fl. Size 1.20 9.50 19.00

A rare Martagon type Lily from the Orient with small recurved nodding orange flowers, lightly dotted oxblood-red. Partial shade, plenty of humus and a light soil suits them; 2 ft. tall; July; cover 3".

L. MOSQUITO. (Hybrid) Oct.

4-6" .65 6.00 12.00

A Preston hybrid with lovely small recurved golden orange flowers having a few dark dots. It is very similar to Davidi in color and shape and is very effective; 4 ft; July; cover 4".

L. MURIEL CONDE. (Hybrid) Oct.

4-5" 1.00 8.75 17.50

Another Preston hybrid with pretty recurved golden orange flowers with garnet-brown dots. It is healthy, vigorous and very free flowering; 5 ft; July; cover 5".

L. PARDALINUM. Oct.

1 Crown 1st Size .30 3.50 7.00

Sunset Lily. Very hardy native from the northwest, easily grown and best in partial shade and well drained moist soil. The bloom is Martagon-like, recurved, medium, deep orange-red, shading to crimson at the petal tips, mahogany spots. 6 ft; June-July; cover 6"; plant 1 ft. apart.

L. PARDALINUM GIGANTEUM. Oct.

4-5" .30 3.90 8.00
5-6" .35 4.25 9.50
6-7" .45 5.00 10.00

Sunset Lily. One of the easiest Lillies to grow, a giant, vigorous and increases rapidly. The flowers are giant recurved, in a brilliant crimson and golden yellow shading to orient red at the petal tips, profusely spotted purple-amber-brown. It stands 8 feet high with as many as 30 flowers per stem and needing no staking. Sun or partial shade, July; cover bulbs 5 in.; 18 or more inches apart.

An established plant will carry as many as 30 blooms. Try it by a stream or pond.

WE ARE SHIPPING DIRECT FROM OREGON; NO DELAYS, BULBS PACKED DIRECT FROM THE SOIL -- FRESH!

L. PARRYI. Oct.

Fl. Size 1.50 12.00 24.00

No native Lily is more beautiful than this lovely yellow semi-trumpet species from the Sierras. Very fragrant, color lemon yellow to citron yellow lightly spotted brown, funnel-shaped with gracefully recurved tips and while it is not easy to grow, it is a charming Lily and well worth growing; 2-5 ft; July; cover 4".

L. PAULINA KLINE. (Hybrid) Nov.

Fl. Size 4.00

A stunning Havemeyer hybrid, semi recurved, large flowers, in majolica-yellow shading to saffron and flecked with oxblood-red at the base of the petals. It is hardy, easy to grow in either sun or partial shade; resistant to disease; to 6 ft; August; cover bulbs 6".

L. PHILADELPHICUM. Oct.

1st. Size .45 4.50 9.00

Erect cup-shaped medium, orange-scarlet flowers with large maroon spots, in June-July; 3 ft; a popular species for shady woodlands.

L. PHYLLIS COX. (Hybrid) Oct.

4-6" .60 6.00 12.00

A Preston hybrid of outstanding color, brilliant orange-red deeping towards the tips, with the outside petals a lovely golden orange and dotted garnet-brown. Sun or partial shade; 3-5 ft; July; cover 6".

L. PRESTON HYBRID SEEDLINGS. Oct.

4-6" .40 4.50 9.00
6-8" .60 6.00 12.00

Recurved and semi-recurved, medium, with color varying thru all shades of yellow, orange and red; 3-5 ft; late June thru July; cover 6".

L. PRINCEPS G. C. CREELMAN. (True) Oct.

Fl. Size 2.50 22.00 44.00

This is considered one of the best of the Regal x Sargentiae Hybrids, with trumpet type flowers late in July. White with canary yellow throat shading externally brownish lavender. Full sun or partial shade, 6-8 ft; cover 6"; 1 ft. apart.

PRICES: Are for 1, 10, and 25 bulbs prep'd.

L. PRINCEPS, G. C. CREELMAN Nov.

SEEDLINS FROM HYBRIDS.

5-6" .40 4.50 9.00
6-8" .60 6.00 12.00
8-10" .80 7.50 15.00

These are similar to the above but vary in height from 4 to 6 feet and in flowering time from late June to mid-August. They are especially valuable for the lateness of their bloom; culture as above.

L. RED BIRD. (Hybrid) Oct.

Fl. Size 2.25 18.00 37.00

In this striking new hybrid introduced in 1949, the flowers face outward with as many as 15 on a stem, 5 ft. tall. It blooms in late July when most of the other Lillies are out of flower. Medium, dark red, shaded lightly with Tigrinum-rose and spotted darker; 5 ft; cover 5"; 1 ft. apart.

L. REGALE. Oct.

Last column prices are for 100 bulbs.

4-5" .20 2.25 4.50 8.75
5-6" .25 2.50 5.00 10.00
6-7" .30 2.75 5.50 11.70

7-8 .35 3.00 6.00 14.00
8-9" .40 3.25 6.50 19.00
9-10" .50 4.65 9.25 25.00
10-12" .60 5.75 11.50 33.00
11-12" .70 7.00 13.00 43.00
12" up 1.00 9.00 19.00 55.00

The Regals are the most popular of all the Lillies and it has been said that if you can have but one Lily, then it should be a Regal. It requires the least care and flowers year after year and for the average grower, no Lily surpasses it. We have listed it in all its sizes and quote rather close prices for it should be planted in mass in every flower garden. They even should be in rows for cutflowers where they will last for years if not less than half the stem is left the plant. The flowers are large trumpets, white with canary-yellow throat shaded externally spinel-red; 4-6 ft; June-July; cover the bulbs with 6" of soil.

L. REGALE ALBUM. Oct.

5-6" .25 3.00 5.00
6-7" .30 3.50 6.25
7-8" .40 4.25 8.00
8-9" .50 5.00 9.00

This is an exceptionally fine strain of white Regals which were hand selected and grown under close supervision over a period of years. They are pure white in color; cover bulbs 6".

L. ROEZLI. Oct.

Fl. Size 1.00 9.50 20.00

An Oregon native Martagon species, graceful in form and of striking color, golden yellow shading to red at petal tips; 6-12 flowers in early July; 5 ft. tall. It should be grown in lime free soil, with plenty of moisture but good drainage; sun or partial shade; cover 4".

L. RUBELLUM. Oct.

Fl. Size 1.00 9.00 18.00
Large Size 1.50 12.00 24.00

A lovely small rose-pink Lily that flowers early in May and into June, growing 2 ft. tall making a pretty species for the rockery. It grows in light shade where there is plenty of humus; a sandy loam soil is to its liking. Flowers are funnel-shape and delightfully fragrant; cover 4".

L. SARGENTIAE x CENTIFOLIUM. Nov.

6-8" 1.10 9.50 19.00
8-10" 1.50 13.00 26.00

A 1950 introduction having large trumpet flowers, white with external color varying from greenish to reddish brown with yellow throats. Its late flowering period, August, makes it especially desirable; 5-7 ft; sun; cover 6"; 1 ft. apart.

L. SCEPTRE. (Hybrids) Oct.

Fl. Size 3.00

An exquisite pinkish buff, suffused fuchsia purple at petal tips and spotted with purple. It is tall and vigorous and blooms in late June; 5 ft; recurved; cover 5 inches.

L. SCOTTIAE. (Dark Form) Oct.

4-6" .65 6.00 12.00

A Canadian hybrid by F. L. Skinner, flowers facing outwards, recurved, large, dark brick red with mahogany spots, and blooming in May into June; 3 ft; cover 5".

PRICES: Are for 1, 10, and 25 bulbs prep'd.

Continued on Page 98

PRICES ARE FOR 1, 10 and 25 BULBS.

PIONEER SEED COMPANY - DIMONDALE, MICH.